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Original Communications.

DESTRUCTION OF ONE LUNG BY INFLAMMATORY PHTHISIS.

By PROFESSOR ALONZO CLARK, M.D.,
NEW YORK.

THE following extraordinary case ought to be narrated, with many important details which it is now impossible to give. The patient was the son of Dr. R. C. Cone of this city, who, though a capable man, preferred, in a case so deeply involving his affections, to be guided by his professional friends. The patient was seen, therefore, from time to time, by different physicians, but by no one often enough to enable him to give a connected and satisfactory account of the symptoms. The importance of the case will, I think, justify me in laying it before the profession, notwithstanding the imperfections of this record.

It is common enough for people to say of themselves, or of another, "One lung was (or is) all gone;" but an examination contradicts this statement, with so much certainty, that I, for one, had about persuaded myself that death must occur before so much devastation could be accomplished. It is true that Dr. Morton, in his book on Consumption, published before auscultation was perfected, has reported the case of a lady who had, as he said, lost the whole of one lung, and I think part of the other; yet she was, in spite of this loss, a woman of society and enjoyed life. This and similar records (they are very few) I was disposed to believe must be set down to the account of imperfect observation. But here is really a case of phthisical or inflammatory destruction of one lung.

U. P. Cone, a little past twenty-three years of age, of good habits, rather short in stature, but otherwise well developed, having the appearance of health, on the first Sunday of April, 1871, was engaged most of the day as secretary of a very large Sunday-school, in attending public worship and a Bible class, and went to bed in usual health at ten o'clock. At half-past twelve he was awakened by an hæmoptysis. The hemorrhage was considerable, yet not really profuse. He did not remember to have had cough, but on the 7th of January previous had some hæmoptysis while travelling. The father is a healthy man, but has lost one sister of phthisis, and his paternal grandmother had "old-fashioned consumption" (*i. e.* very chronic). On the mother's side no instance of this disease could be cited.

The hemorrhage was not then repeated; but for the next eight days the patient kept himself very quiet and free from excitement, when he was attacked by pneumonia of the left side, beginning with a chill, attended with pain in the side, and soon with chocolate-colored or "prune-juice" expectoration. This latter was unusually profuse, amounting at one time to about half a pint in twenty-four hours; but it gradually ceased, lasting about a week in all. During this attack considerable blood was raised with the pneumonia expectoration.

I saw him for the first time on the 15th of April. This was the fourth day of the pneumonia; he was still coughing up blood pretty freely. The question was raised, whether this pneumonia was provoked by bloody infarction from the late hemorrhage.

April 16th. The pneumonia had solidified nearly the whole of the left lung. The pneumonic fever was high and exhausting; this and the pain in the side were considerably reduced by applying cloths wrung out of hot water to the whole anterior of the chest and abdomen, (fomentations). These and hot foot-baths relieved the pain and produced sleep.

April 20th. The rational symptoms of pneumonia, such as pain in the side and head, and the continued fever had abated; but the pulse was rapid, the pneumonic consolidation was not diminished, and râles were becoming audible over much of the lung.

May 4th. The whole left lung still solid; afternoon fever and night-sweats; severe pain renewed in left side.

May 17th. Expectorating freely, hectic continues, loss of appetite, emaciating rapidly, inflammatory and phthisical consolidation not diminished, râles everywhere in left lung.

June 16. Patient confined to bed for a little over two months. No material change of symptoms; sweats, emaciation, and consolidation as before. Although too feeble to walk, Dr. C. will to-day take his son to the country, (Green Co., N. Y.).

The effects of this change were very marked. In the country the patient soon regained his appetite; the sweats ceased, he gained strength and flesh. He improved slowly but steadily for four months, having, however, all the time, cough, and more or less of expectoration.

Nov. 18. Returned from the country, still pale and thin, has strength to walk about town for an hour at a time; no hectic or hemorrhage, but a large cavity in the upper part of left lung, râles and dulness in all the rest of it. "Worse than would appear from the general symptoms," is a part of my note at the time.

From this time onward I saw him at long intervals, and did not record his condition again until the time of his death. In general, with the aid of his father, I can say that his health appeared to improve; that the left side of chest became more and more contracted, and the spinal column, curved in the thorax from the age of fourteen to the left, became more curved. He always had cough, more or less, with expectoration; but for eleven months before his death he was able to give the usual time and attention to a business, which he was conducting successfully, with the aid of a partner, up to the day of his fatal seizure, nine days before his death.

In this last attack he had three bleedings; one on Friday, January 24th, 1874, pretty abundant; another on the Tuesday following, more profuse than the first. Twenty minutes after this bleeding ceased, he vomited a considerable quantity of blood.

On Sunday morning the bleeding returned again, and was rapid, profuse, and fatal. The blood was discharged from the mouth and both nostrils at the same time. He seemed to faint, reviving a little he made a few laborious gasps, and then ceased to breathe.

I saw him on Tuesday, the day of the second bleeding, but unwilling to have him make much muscular exertion, I did not make a careful examination of his chest, hoping that in a few days I could do it better, and without exciting apprehension that change of position would produce renewed hemorrhage. These accidents occurred when his non-professional friends believed that his health was almost completely restored—two years and ten months from the beginning of his illness.

A *post-mortem* examination was made on the third day after death, and I greatly regret that I was unable to attend it. I, however, saw what remained of the left lung. The examination was conducted by Dr. T. E. Satterthwaite and Dr. E. O. Cowle, very competent men, both of whom recorded what they saw. Dr. Kennedy also assisted at the examination, and confirms the reports. From these records, and from what was brought to me for inspection, the following account is compiled:

Body not much emaciated. Rigor mortis well marked.

Thorax markedly depressed and contracted on the left side. Spinal column curved markedly to the left, the highest point of convexity being at the seventh and eighth ribs. The capacity of this half of the chest was greatly diminished.

On opening the thorax the lung tissue was found occupying the left as well as the right cavity, but it was soon ascertained that the right lung, while it filled the right cavity, extended to the left, partly by emphysematous expansion, so that it appeared to fill the diminished left cavity. Turning back the extended portion of the right lung, nothing was found in the left chest but the heart, and a hard mass, three inches by two and a half, lying against the side of the spinal column, between the second and fourth ribs, firmly adherent to the posterior of the thoracic wall. In this there were no traces of the vesicular tissue of the lung, nothing like air-cells, but instead a little cheesy matter and melanotic coloring material, of the latter not a large quantity. A bronchus of large size, perhaps enlarged (bronchiectasis, Cowle), opened out of this mass, but the mass could not be inflated through it. A few remains of the smaller bronchial tubes were seen in the middle of mass, and it was covered by a continuous smooth membrane, which appeared to be the thickened pulmonary pleura, without perforation or cicatrix. Some fibrous tissue was seen amidst and around the cheesy matter and under the investing membrane (pleura). The melanotic material may have been derived from the bronchial glands, which were indistinct and partly blended with the other constituents of the mass. The lining membrane of the remaining bronchial tubes was only slightly reddened. The tubes contained no blood, and no blood-vessel was discovered which seemed to have been the source of the fatal bleeding. Dr. Cowle, however, noticed, as he thought, an ulcerated point at the outer end of the large bronchus, and thinks that the blood was discharged from that point.

The left pleuritic cavity contained no air or gas, no serous fluid, no pus.

The pleuritic membrane of this side in the inferior portions of the cavity was dotted with tuberculous granulations. Otherwise the costal and diaphragmatical pleura does not appear to be unnatural.

The heart had fallen back into the posterior curve of the ribs, and the pericardium was attached by easily broken, fibrous bands to the posterior wall of the chest, and it had fallen downward a little, so that its apex was on the level of the sixth left rib. Consequently this poor, unbreathing residuum of the left lung was almost wholly above the heart, while both had contracted adhesions, more or less firm, to the posterior thoracic wall.

The right lung, by this retreat of the heart and great vessels, was permitted to pass over in front of them into the left cavity. This implies yielding or absorption of the mediastinal membranes. Their condition was not noticed at the autopsy.

It was chiefly by the expansion of the upper and lower lobes that the left cavity was filled. "The middle lobe," Dr. S. says, "rested on the vertebral column." Besides this great enlargement, the upper and middle lobes were studded with bright gray miliary tubercles; a few only in the lower. The upper and lower lobes were emphysematous, and the lower was congested with blood. There was no cavity, and no evidences of hemorrhage in any part of this lung.

Heart: Right ventricle was soft and flabby, otherwise healthy; walls of left thickened, having atheromatous patches on the inner surface (the same deposit in the aorta); no defect in the valves. The usual small quantity of serum in the pericardium.

Arytero-epiglottidian folds thickened (C.), a little œdematous (S.), but no ulceration of them or of the larynx.

Stomach was dilated, and about half filled with dark blood.

Liver small, slightly atrophied, tuberculous granulations along the border, hemorrhagic infarction in the lower part of the left lobe.

Mesenteric glands not materially changed.

Kidneys not much affected, capsules slightly adherent, except at a few points; normal relations preserved between the cortical and pyramidal portions; in the left, stellate arrangement of vessels on one side: right, hypostatically congested.

Spleen large and softened (softening post-mortem?) showing some miliary tubercles.

No other pathological changes found in the thoracic or abdominal cavities. There were no central symptoms, and the brain was not examined.

Here, then, is a case which will bear a close examination. The pathological record is entirely reliable. It was written by two of the physicians, separately, and one did not know that the other had sent his report, and yet they agree in every essential particular. Then it will be remembered that all that remained of the left lung was examined by myself, and by Dr. C., the father, who is also a competent judge.

1. The function of one lung was completely abolished, and yet the subject of this destruction had recovered from a dangerous sickness while the destructive process was going on, and enjoyed what was called good health after it was completed.

2. This destruction was the consequence of a pneumonia, which in the first week was only distinguishable from the most common form of that disease by the facts that it occurred a week or eight days after a pulmonary hemorrhage, and that it was attended by a free expectoration of blood.

3. This pneumonia, however, did not resolve—never was resolved by either of the usual methods, vesicular softening and expectoration, or vesicular softening and absorption—but after six or eight weeks began to break down, with a sort of ulcerative action that destroyed all the different lung tissues at the same time; and seven months from the beginning of the pneumonia this process had excavated all the upper portion of the lung, leaving the middle and inferior portions, as far as can be judged, to the five or six following months.

4. The proper pneumonic symptoms were followed, after an interval of about two weeks, by symptoms of phthisis, which became extreme in two or three weeks from their commencement, having, however, a duration of only a few weeks, with the exception of cough and expectoration.

5. The tubercles found after death, were they the offspring of "the cheesy degeneration" of the left lung, or do they belong to the diathesis which caused the hæmoptysis that preceded the pneumonia?

6. It would hardly seem possible that the pneumonia and after-obliteration of the lung should not have obstructed the circulation from the right heart, and set back the venous blood upon the large viscera of the abdomen. Yet there was no hypertrophy of the right ventricle; and while there was infarction to a limited extent in the left lobe of the liver, and enlargement of the spleen, the liver is described as smaller than natural. The size of the pulmonary arteries, right and left, is not referred to; but it is fair, under the circumstances, to infer that the right branch was materially enlarged, and the right heart in this manner relieved.

7. In rapid and overwhelming hæmoptysis it is common to find that portions of the blood have been drawn into the lung, producing spots of pulmonary apoplexy. In this case nothing of the sort occurred, but the blood not actually discharged from the mouth seems to have found its way into the stomach.

Original Lectures.

ON CARDIAC HYPERTROPHY.

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(Phonographically reported for THE MEDICAL RECORD.)

GENTLEMEN:—At our last two clinics in the hospital I brought before you a number of patients with more or less extensive cardiac hypertrophy, the hypertrophy in no two cases depending upon the same cause. While the clinical aspect of this affection is fresh in your minds, I will consider somewhat in detail the prominent points in its history.

By the term cardiac hypertrophy is meant thickening of the walls of the heart by an increase in their muscular tissue. This muscular increase may be confined to one portion of the heart, or it may involve the walls of both auricles and ventricles. There are three recognized forms of cardiac hypertrophy.

First,—Simple Hypertrophy.—In this form there is an increase in the thickness of the walls of the heart, but the capacity of the cavities is not increased. Simple hypertrophy is usually confined to the left ventricle, and is most frequently met with in connection with chronic Bright's disease and chronic alcoholismus.

Second,—Eccentric Hypertrophy.—In this form there is thickening of the walls of the heart, with increase in the capacity of its cavities. This form is most commonly met with, or occurs as the result of some valvular lesion.

Third—Concentric Hypertrophy.—In this form of cardiac hypertrophy there is claimed to be thickening of the walls of the heart, with diminution in the size of the cavities. Some observers deny the occurrence of this form of hypertrophy, and claim that the diminution in the capacity of the cavities is only apparent; that it is the result of violent ventricular contraction just prior to death. I have never seen an example of this form of hypertrophy, and mention it only for the reason that your attention is called to it in most of your text-books.

Morbid Anatomy.—The anatomical changes which take place in cardiac hypertrophy vary according to its seat, and somewhat according to the character of the hypertrophy. In eccentric hypertrophy there will always be an increase in the size of the papillary muscles, and the septum will be thickened, which does not necessarily occur in connection with simple hypertrophy. It is often difficult, even after death, to determine the existence of a moderate degree of cardiac hypertrophy, while extensive hypertrophy is very readily recognized.

When cardiac hypertrophy exists, the first thing to be noticed is a change in the shape of the heart, and that change will correspond to the seat of the hypertrophy. If the hypertrophy is confined to the left ventricle, either simple or eccentric, the heart will assume a more than usual pyriform shape, and become elongated; the right ventricle seems to be a mere appendage to the left.

On the other hand, hypertrophy of the right ventricle increases the horizontal measurement of the organ, and gives it a more oval shape. If all the cavities of the heart are increased in capacity, and their walls hypertrophied, the whole heart will be increased in size, but the change will be most marked in its horizontal direction, and the organ will assume a globular shape.

In connection with any form of hypertrophy it will be noticed that the cardiac walls are stiff, so that when the cavities are opened and the blood has been removed from them, they do not collapse. The color of the muscular tissue is redder than that of normal cardiac muscle. Cardiac hypertrophy is really a hyperplasia; there is an increase in the number of the muscular fibres, differing in no way in their anatomical structure from the normal heart muscular fibre; it is simply an abnormal growth of the normal tissue of the heart. There may be occasionally an increase in the size of the muscular fibres, but the hypertrophy mostly consists in an increase in their number. There is no well-defined limit to cardiac hypertrophy. The heart may reach such a degree of enlargement as to weigh forty ounces more than when in its normal state. After the hypertrophy reaches a certain point, secondary cardiac dilatation is liable to develop. Preceding and accompanying this form of dilatation there is fatty degeneration, which shows itself first in the more recently formed muscular fibres. An increase in the number or size of the muscular fibres of the heart-walls causes a corresponding increase in the power of the heart.

In general terms, cardiac hypertrophy is the result of over-work.; for some reason the cardiac walls are called upon to perform more than their normal amount of labor, and an increase in the number of the muscular fibres necessarily follows an increase in the labor to be performed by muscular walls.

The walls of a hypertrophied heart vary in thickness, according to the cause of the hypertrophy. The walls of the left ventricle may become an inch and a half, or even two inches in thickness, while those of the right ventricle rarely reach an inch in thickness. The heavier a heart becomes, the deeper does it lie in the thoracic cavity, the diaphragm is pushed down, and the heart inclines more to the left of the thorax.

Etiology.—Whenever the function of the heart is permanently or repeatedly overtaxed, or when the resistance which it should normally encounter is increased, hypertrophy of its walls is the result. The modes by which it is directly induced are as follows:

First,—Dilatation of the Cavities of the Heart.—Under certain circumstances, most of which have already been referred to, dilatation of one or all of the cavities of the heart takes place during its diastole, the capacity of the cavities is consequently increased, and they receive more than their normal quantity of blood. A certain degree of force is required to discharge the normal quantity of blood from the heart cavities; if there is more than the normal quantity, a greater than the normal degree of force is required to expel it. This demand for increased heart-power is supplied by an increase of muscular fibres in the heart walls, the hypertrophy is developed in proportion to the increase of force required to properly perform the increased amount of labor. This is the cause of all those conditions of cardiac hypertrophy found in connection with valvular lesions. Under these circumstances the hypertrophy is always eccentric, and is not due so much to the valvular lesions as to the dilatation of the heart cavities, which occurs as the result of the valvular lesions. The order is, first, dilatation, then hypertrophy, to compensate for the dilatation. The dilatation is developed during the cardiac diastole; the hypertrophy during the cardiac systole.

Second.—Mechanical Obstruction.—There is a long list of mechanical obstructions which will give rise to cardiac hypertrophy.

The first which I shall name are those which originate in the heart. Aortic stenosis gives rise to hypertrophy of the left ventricle; mitral stenosis to hypertrophy of the left auricle; pulmonic disease to hypertrophy of the right ventricle; tricuspid stenosis to hypertrophy of the right auricle. The other valvular lesions, which are attended by cardiac hypertrophy, first cause dilatation of the heart cavities, and the hypertrophy, as already shown, develops as the result of the dilatation.

Again, in this list of mechanical causes are included all the diseases of the arteries which give rise to cardiac hypertrophy. The walls of the large arteries may lose their elasticity from atheromatous degeneration, or they may be constricted or dilated, and thus offer obstruction to the blood current. An aneurismal tumor may have developed sufficiently to obstruct the current of blood, or some tumor may press upon and diminish the calibre of the aorta; under such circumstances a more than normal amount of work will be imposed upon the left ventricle, and simple cardiac hypertrophy will be developed as the result.

Again, obstruction to the pulmonary circulation will give rise to hypertrophy of the walls of the right ventricle; in many instances dilatation will occur prior to the hypertrophy, but in quite a large number of cases direct hypertrophy of the right ventricular walls will occur as the result of obstruction to the pulmonary circulation. Such obstruction may be developed in connection with pulmonary emphysema, chronic pleurisy, and other chronic diseases which affect the circulation of blood through the lungs. It does not ordinarily occur in pulmonary phthisis, for the reason that the pulmonary circulation is not obstructed to any great extent by the phthisical changes.

Again, hypertrophy of the left ventricle occurs as the result of interference with the general capillary circulation. Examples of this are met with in cases of chronic Bright's disease, especially when the kidneys have undergone atrophy. Simple hypertrophy of the cardiac walls is one of the most constant attendants of this stage of kidney disease.

In chronic alcoholismus rheumatic hyperinosis, or any other condition which interferes with the systemic capillary circulation, more or less extensive simple cardiac hypertrophy of the left ventricle is developed. Any thing which increases, for any length of time, the rapidity and force of the heart's contraction, may produce cardiac hypertrophy. Among this class of causes may be included excessive and prolonged muscular exercise. Pericarditis is not unfrequently a cause of cardiac hypertrophy, either by inducing softening and dilatation of the ventricles, or by the obstruction which is offered to the heart's action by the adhesions between the two surfaces, which result from the inflammatory processes. You will occasionally meet with cases where no cause can be found for the cardiac hypertrophy.

In detailing the causes of hypertrophy of the walls of the heart, I have confined myself to the primary hypertrophy. In order that you may not be misled by these statements, it is well for you to remember that hypertrophy of the walls of one cavity is soon followed by increase in the walls of other cavities. For instance, hypertrophy of the left ventricle, after a time, leads to hypertrophy of the right ventricle, and hypertrophy of the right ventricle leads to that of the right auricle, and secondarily to that of the left ventricle. Any cause which increases the rapidity and force of the heart's actions, if long continued, will lead to cardiac hypertrophy.

Symptoms.—It is exceedingly difficult to describe the phenomena which attend cardiac hypertrophy, for they almost always depend upon, or are associated with, some valvular lesion or arterial change, or some cause of capillary obstruction, all of which modify, or to a greater or less extent obscure the phenomena, which attend cardiac hypertrophy. Total eccentric hypertrophy usually cannot be detected, except by a physical exploration of the chest. There are, however, certain objective symptoms which are important and which will aid in its diagnosis. The direct effect of general hypertrophy of the heart is to cause an abnormal fulness of the arteries, and a lack of blood in the veins. The pulse is full and strong, the face is easily flushed, the eyes somewhat prominent and brilliant, and there is carotid pulsation. The respiration is not usually disturbed until the heart becomes so increased in size as to give rise to pressure upon the adjacent lung tissue and upon the diaphragm; then the patient will have a sense of fulness about the chest, and with that sense of fulness there will be more or less uneasiness in the epigastrium, and the stomach digestion may be more or less interfered with. If dyspnœa is present, it is due to the pressure of the enlarged heart, rather than to any change in the lung tissue. This class of patients are very apt to complain of cardiac palpitation when excited, especially if the hypertrophy is insufficient to completely overcome the obstruction. In almost all cases there is some cerebral hyperæmia, consequently you will find in persons who are the subjects of eccentric cardiac hypertrophy that alcoholic stimulants, nervous excitement, and active physical exercise cause headache, vertigo, ringing in the ears, and bright spots or flashes before the eyes. In such persons cerebral apoplexy may at any time occur. In fact, the majority of the cerebral apoplexies which occur in young subjects are associated with cardiac hypertrophy. It is now well established that there is close connection between the development of atheroma of the arteries in certain instances and cardiac hypertrophy. Some observers claim that the cardiac hypertrophy is secondary to the arterial changes; but it is a fact of every-day observation that cardiac hypertrophy from valvular changes may give rise to atheromatous changes in the arteries, for reasons which have already been fully considered in connection with the history of valvular diseases. The steps of the change are, first, cardiac hypertrophy; second, endocarditis; and lastly, atheroma.

Thus it will be seen that although the general symptoms of cardiac hypertrophy are not at all diagnostic, yet, when considered in connection with its physical signs, the diagnosis is generally very easily made.

Physical Signs.—The physical signs of cardiac hypertrophy will vary with the seat and extent of the hypertrophy. When the hypertrophy is *general*, upon *inspection* you will notice that although the heart's action is regular, there is an increased area of visible impulse; there is a visible motion with each cardiac pulsation over and even beyond the entire precordial space. In children there is often a visible prominence of the precordial spaces.

On *palpation* the area greatly exceeds that within which the normal apex beat is felt, and the impulse has a heaving, lifting character. Usually the apex beat of a healthy heart is perceptible only over a space corresponding to one or two intercostal spaces, while the shock of a hypertrophied heart may be perceptible over the whole precordial space: and in cases of extensive hypertrophy the head of the listener is often lifted by the shock. When the right ventricle is the seat of the hypertrophy, the thoracic wall between the apex and the lower edge of the sternum, or even the sternum itself, is shaken, causing a strong epigastric impulse. When the left ventricle is the seat of the hypertrophy, the apex beat is felt farther to the left than natural, sometimes three inches below, and three or four inches to the left of the normal position. In total eccentric hypertrophy the cardiac impulse is different both longitudinally and transversely. The apex beat, in hypertrophy of the right ventricle, will be carried to the left and upward, whereas in hypertrophy of the left ventricle the apex beat will be carried to the left and downward.

On *percussion*, when general cardiac hypertrophy is present, the normal area of cardiac percussion dulness, both deep-seated and superficial, will be increased to the right or left, or downward. The dulness does not increase upward, except in rare instances, when the auricles are not only hypertrophied but dilated. If the hypertrophy is confined to the right ventricle, the area of dulness may extend considerably to the right of the sternum; while, if the hypertrophy is confined to the left side of the heart, the area of dulness may extend considerably beyond the left nipple. It is by these signs that you decide whether right or left side hypertrophy exists. The area of superficial cardiac dulness will correspond to that portion of the heart which is uncovered by lung tissue. When eccentric hypertrophy of the left ventricle is present, the superficial area of dulness will be increased to the left; when the same condition of hypertrophy is present in the right ventricle, the superficial area of dulness will be increased to the right. Usually it is not necessary to resort to percussion in order to determine if cardiac hypertrophy is present. By palpation you readily determine the position and character of the apex beat; if you find it far to the left of its normal position, and of a heaving, lifting character, you may be certain that there is hypertrophy of the left ventricle.

On *auscultation* you will notice that the first sound of the heart, if not accompanied by a murmur, is dull, muffled, and prolonged; in some cases greatly increased in intensity. If the hypertrophy is confined to the left ventricle, the second sound heard over the aortic orifice is much increased in intensity; if the right ventricle is hypertrophied, the second sound over the pulmonic orifice will be increased in intensity. I have noticed in extensive hypertrophy that often both sounds of the heart have a kind of metallic ring which is unnatural. You will also find that there is a diminution or an entire absence of the respiratory murmur over the normal precordial region. In this connection it is necessary to call your attention to the fact, that not unfrequently you will find, when extensive pulmonary emphysema exists, although the heart may be very much increased in size, the increase in the volume of the lungs so shut over the heart, that, notwithstanding its hypertrophied condition, the apex beat will not be very much increased in force, and the heart sounds will be diminished rather than increased in intensity. It may, however, be assumed that when extensive pulmonary emphysema is present, and is attended by venous pulsation in the neck, that there is hypertrophy and dilatation of the right ventricle, and perhaps you may be able to develop an abnormal area of cardiac dulness on the right side.

Differential Diagnosis.—The diagnosis of cardiac hypertrophy is not usually very difficult.

The distinctive points of eccentric hypertrophy of the left ventricle—the most frequent form of cardiac enlargement—are a full, strong pulse; carotid pulsation; flushed countenance; prominent and brilliant eyes; an abnormally forcible apex beat, which is visible over an unnatural area, more marked below and to the left of the normal position of the apex beat; an increased area of cardiac dulness, also to the left and downward; increase in the intensity of the heart sounds, especially of the second sound over the aortic orifice.

The distinctive points in the diagnosis of eccentric hypertrophy of the right ventricle, next in order of frequency, are, a forcible heart's action, noticeable along the sternum and the left lobe of the liver, the apex beat being carried to the left and upward rather than downward—the cardiac impulse reaches nearer to the median line than normal, giving rise to more or less marked epigastric impulse; an increased area of cardiac dulness to the right, increased intensity of the pulmonic sounds, and more than normal intensity of the first sound of the heart near the median line; the two latter are the most reliable signs in the diagnosis of hypertrophy of the right ventricle. The diagnostic signs of total eccentric cardiac hypertrophy are similar to those of eccentric hypertrophy of the left ventricle, except that the area of cardiac dulness is increased in all directions, and all the heart sounds are more intense than normal. In the differential diagnosis of enlargements of the heart you are liable to confound hypertrophy with other enlargements of the same organ. *First*, with cardiac dilatation; *second*, with thoracic aneurism; *third*, with thoracic, aneurismal, and mediastinal tumors; *fourth*, with consolidation of lung tissues which may surround the heart. Under certain circumstances pleuritic effusion may be confounded with cardiac hypertrophy.

But the points of its differential diagnosis can better be considered in connection with cardiac dilatation. I will therefore defer its further consideration until we have completed the study of the latter affection.

Prognosis.—Cardiac hypertrophy admits of a more favorable prognosis than any other cardiac affection. In almost all instances it is compensatory, and the urgent symptoms which give rise to its development are relieved, and life is prolonged. Simple cardiac hypertrophy, unless the result of aortic stenosis, may exist for years without the occurrence of any dangerous or very troublesome symptoms.

Slight hypertrophy of the left ventricle is very common in those who have led an active life, and have been compelled to perform violent and prolonged physical labor: the hypertrophy is no more than is required to maintain an equilibrium in the circulation, and in no way interferes with duration of life. The patient should not be made aware of the presence of such hypertrophy, for it seems to have an unfavorable significance, and a knowledge of the fact may greatly disturb the patient. When, however, cardiac hypertrophy is present, in which there is not only hypertrophy, but degeneration of the hypertrophied walls, the result of imperfect nutrition, after the manner already described, the prognosis is very unfavorable.

The prognosis in hypertrophy of the right ventricle is by no means as favorable as in hypertrophy of the left side of the heart; because it must inevitably be accompanied by considerable pulmonary obstruction, and consequently is rapidly progressive. It is hardly necessary for me to say that the prognosis in any case of cardiac hypertrophy depends upon the cause of the hypertrophy. The reason for this is apparent. We now come to the subject of treatment.

Treatment.—Although we cannot expect by any mode of treatment to cure cardiac hypertrophy, still much can be done to arrest its development, by removing the causes which produce it, or by rendering them inoperative. Patients with cardiac hypertrophy must avoid alcoholic stimulants.

They also should avoid immoderate eating, active and prolonged physical exercise, and mental excitement; these are things especially to be avoided. All those conditions which interfere with the general circulation, if possible, must be removed. This embraces interference with the abdominal circulation, as well as the pulmonary and systemic. Straining at stool and constipation should be avoided by daily keeping the bowels freely moved. This condition of the bowels should be maintained chiefly by habits of life, and regulation of diet, cathartics being resorted to only in exceptional cases. Any symptoms of cerebral oppression must be immediately relieved by those means which diminish the force of the heart's action. When the pulse is full and strong, and there are evidences of cerebral hyperæmia, it has been the practice of some to bleed the patient; but this treatment is contra-indicated, for the presence of anæmia greatly aggravates the dangers arising from cardiac hypertrophy. The symptoms must be very urgent to warrant resorting to it. Of all the remedial agents which diminish the force of the heart's action I have found aconite the best. When given in full doses it is more reliable than any other means I have employed. You may administer every three or four hours from two to three drops of Fleming's tincture of the root. No drug that I have used so fully and promptly relieves the vertigo and other painful sensations that attend cardiac hypertrophy. When the dilatation of the cavities exceeds the hypertrophy of the cardiac walls, aconite does harm.

The *use of digitalis is contra-indicated*, unless there is degeneration of the hypertrophied cardiac walls; for its action is to increase rather than diminish the force of the heart's action. Unquestionably it is one of our most reliable agents in those diseases of the heart in which the heart's action is enfeebled; but it should never be given in those cases where the power of the heart's action is increased. I shall tell you hereafter to administer digitalis in chronic Bright's disease, although hypertrophy of the left ventricle is one of its most constant attendants; but I advise its administration for the relief of the kidneys, which when relieved give secondary relief to the hypertrophied heart. Besides, in many cases of Bright's disease, the heart, although hypertrophied, is not able to overcome the obstruction to the circulation in the small arteries and capillary vessels, and the tonic effect of the digitalis raises the heart-power to the point where the obstruction is overcome, and the equalization of the circulation established.

Reports of Hospitals.

BELLEVUE HOSPITAL.

REPORTS OF PRACTICE, AND PECULIARITIES OF TREATMENT.

DEPRESSION OF OUTER TABLE OF SKULL, AND FRACTURE OF THE VITREOUS TABLE—A POINT IN DIAGNOSIS.

A BOY, twelve years of age, had received a blow over the right palpebral region, which had knocked him down and produced slight concussion of the brain. From the concussion he was fast recovering. The eyelids and tissues about the eye were badly swollen and of a dusky color.

Upon examination it was found that the outer table of the skull was depressed slightly, and the depression extended over considerable space. The case was left to itself, with the belief that such practice could be adopted with safety. The reason was, that the depression was only slight, and extended over considerable space, and that there were no special evidences of brain complication. Trephining in such cases is not necessary. If, on the other hand, the depression extended over only a small space, such, for example as that produced by a pointed body impinging against the skull, even though the wound may seem insignificant and brain symptoms be entirely absent, it is well to trephine, for the reason that there is a great chance you will find spiculæ of bone depressed in such a manner as inevitably to give subsequent trouble if permitted to remain.

Forty-eight hours after admission the boy was dead. Symptoms of meningeal inflammation were rapidly developed, and post-mortem determined that they were excited by spiculæ of depressed bone. The case well illustrated the great difficulty, in certain cases, in determining *positively* the best thing to be done for such patients.

STONE IN THE BLADDER, CYSTITIS AND CYSTOTOMY.

The cystitis had long preceded the development of symptoms of stone in the bladder. Patient fifty-four years of age. The points of interest were:

(1.) Cystitis was no hindrance to the formation of calculus.

(2.) Cystitis did not countermand the operation of lithotomy.

Lithotomy was performed, and the patient did remarkably well.

HOW TO ESCAPE A HIGH AMPUTATION OF THE THIGH WHEN THE KNEE IS SEVERELY INJURED.

The case was sufficiently interesting to warrant a somewhat extended record. A man, forty years of age, healthy and strong, had received a very severe injury, producing a compound fracture of the bones of the leg, affecting the muscles above and below the knee-joint, nearly tearing away the patella, and extensively destroying the vitality of the skin. All the tissues were enormously swollen, and the swelling extended to a point about half way up the thigh. The first suggestion was to amputate through some tissues at a point just above the injury. That would bring the operation well towards the upper third of the thigh. In the face of that suggestion was the fact—

incontestably proven by statistics—that amputation at this high point in the thigh, in cases of compound fracture, was almost equivalent, *in the adult*, to a fatal operation.

A consultation was held, and it was determined to go directly through the damaged tissues and amputate at the knee-joint. The object in so doing was to save the man from the shock of the high operation under these circumstances. It was known perfectly well that the tissues above the point, when the operation was performed, would slough, and perhaps extensively; but it was believed that the lesser shock of the operation at the knee-joint, although followed by sloughing, would be less jeopardizing to the life of the patient than the high operation would be under the same circumstances. As anticipated, the tissues did slough, and quite extensively; the flaps were undermined, and the whole stump was one mass of granulations without purpose, and through these granulations and sloughing tissues the extremity of the femur protruded.

At this time, when the granulations in the wound were well commenced, the *secondary* operation was performed. The femur was removed within the lower third, the flaps brought together to cover the end of the bone, and left to unite by secondary adhesions. The shock of the secoudary operation was almost nothing. Patients bear these secondary operations well, and that was regarded as a point of great importance in the consideration of the case.

The result of the method of procedure was, escape of dangers attending the high operation, circumventing them by primary amputation at the knee-joint; secondary amputation, when the patient was in far better condition to bear the shock of the operation. The operation, also, could be performed and be attended with but little shock.

The Treatment of Tetanus.—The same patient had tetanus also, but the disease extended no farther than trismus. He is now far advanced towards recovery. The treatment for the trismus was a combination of remedies to meet two indications. The disease is characterized by pain and spasm, therefore opium gr. i. and assafœtida gr. ij. were given in combination every two hours and continued.

The visiting surgeon remarked, that about one-third of the ordinary cases may be saved by this treatment, and that he had no confidence in specific remedies for this disease.

The Difficulty of deciding the Existence of Shortening after Fracture.—Recovery had been made, it was said, *without* shortening. A single case, however, proves nothing with regard to the merits of the treatment. There was one remark dropped with reference to the reason why plaster-of-Paris is not always the best dressing that can be used in the treatment of this class of fractures, as follows: The theory is, that the method claims its recognition upon the ground that it has the power to maintain an exact coöperation of the fractured extremities of the bone. If the limb were marble or wood, the possession of such power can be very easily appreciated; but the limb is not a marble or wooden limb, and it will waste both on account of the pressure from the bandage itself, and also the atrophy which always follows from want of exercise. The result is, the limb shortens by all the influence which the muscles exert when the support is removed.

The first measurement of the limbs under consideration made one-fourth of an inch difference in length; the *second* measurement, however, made nearly half an inch difference in length between the two limbs, and it was concluded not to make any more measurements.

Practically there was no shortening. Cases in which there is absolutely no shortening are extremely rare.

Progress of Medical Science.

Nux Vomica in Nervous Diseases.—Dr. Stefani, contrary to the generally received opinion, considers nux vomica to have a depressing effect on the ganglionic system. He therefore employs the alcoholic extract in all acute and severe hyperæsthenic maladies, as well as in chronic cases, whenever any nervous symptoms connected with the ganglionic or cerebro-spinal system are manifested. In acute diseases the remedy is rapidly beneficial, and in proportion to the size of the dose. The tolerance of the remedy is greater in the chronic affections of the ganglionic system than in those of the cerebro-spinal. Intolerance of the drug may be recognized by the rapidity of its action and the great sympathy between the two nervous systems, and by the extensive range of the spinal symptoms. The intolerance is indicated in these last by the stiffness of the lower jaw and of the tongue, with some subsultus in the lower limbs or in all the body.

The muscular force is depressed by the remedy, if this has been stimulated by the hyperæsthenia; it also stimulates it when the same cause has produced apparent depression. It lowers the pulse when hard and vibrating, and raises it when small and weak. Both the pulse and the temperature are regulated when they vary several times a day. It relieves ardent thirst and obstinate costiveness; arrests diarrhœa and spontaneous hemorrhage; relieves hemorrhoids and relaxes spasms; removes neuralgic, pleuritic, and rheumatic pains. It calms delirium and removes morbid wakefulness or awakes the patient from morbid sleep: promotes perspiration when deficient and arrests it when profuse, whenever any of the above symptoms are the result of nerve trouble. Even in such cases ordinary remedies should first be tried. When the nux vomica is resorted to, use it boldly, so as to be sure how much is to be ascribed to the disease and how much to the remedy. Continue it a day or so to prevent a relapse.

Dr. Stefani gives adult patients with chronic diseases from five to ten centigrammes of the alcoholic extract. In grave cases the dose may be raised to from fourteen to thirty centigrammes in the twenty-four hours. He combines it with an equal quantity of the extract of rhus radicans and four or five times as much extract of hyoscyamus.—*Lo Sperimentale.* May and June, 1874.

Possibility of Diagnosing Syphilis by Calomel Injections.—Dr. Steffanini relates the case of a girl thirteen years of age, who, without having any previous illness, began to complain of sore throat. Astringent gargles did no good, the voice becoming daily more nasal and raw, and liquids were regurgitated from the mouth through the nose. When the patient came to the hospital, it was found on examination that the velum was jagged at its margins and the uvula was destroyed, leaving nothing but two small excrescences covered with sound mucous membrane. The tonsils were slightly swollen and ulcerated, and the glands about the neck enlarged. Specific disease was suspected, but the suspicion was not strengthened by further examination of the parents or child. Ordinary remedies were again resorted to without benefit.

After nearly two weeks a subcutaneous injection of calomel was made in the outer side of the left arm. The dose was about a half grain suspended in about fifteen minims of glycerine. In two days the throat was much better. A second injection was made two weeks later, the patient steadily improving, except that she had a slight irido-cyclitis. Two further injections were made at about the same intervals, after which the patient was entirely cured.—*Giorn. Ital. del Malat. Ven.*, 2, 1874.

Foreign Bodies in the Œsophagus.—At a meeting of the Société de Chirurgie on the 7th of October last, Duplay related the case of a man who came to the hospital, stating that he had swallowed a bone. Efforts were made to extract it, but without avail, and finally as the patient could take liquid food very well, and a bougie of moderate size could be passed into the stomach without difficulty, it was believed that the foreign body was no longer in the œsophagus. On the sixth day after admission a sharp attack of bronchitis set in, and was followed by broncho-pneumonia and pleurisy, and the patient died on the fourth day of this last attack. At the post-mortem examination it was found that a triangular piece of bone had lodged in the posterior wall of the œsophagus, opposite the fourth dorsal vertebra; one angle of the bone was turned upwards, another to the right, and another to the left. It was regretted that the instrument of Collin was not at hand, as the resonator with which it is provided would have apprised him of the foreign body, and œsophagotomy might at once have been performed. Houel related a case in which an individual swallowed a twenty-franc piece: fruitless efforts were made to extract it and the patient died of hemorrhage on the 8th or 10th day. The œsophagus was permeable for its whole length, but it had been perforated and the aorta had been eroded, whence the fatal hemorrhage. Trélat called attention to the existence of the constriction which is found normally at the junctions of the upper and middle third; he also spoke of the difficulty in reaching the anterior wall, and that it was necessary to have the patient bend the neck strongly backwards, which is only possible in young persons; he stated that operations to be successful should be performed at once, as on the following day the foreign body may be encysted in the swollen mucous membrane. Emetics should be discarded as dangerous; he prepared himself for cases of this kind by keeping on hand a full assortment of bougies with calibres reaching as high as 15 millimetres.—*Allg. Wien. Med. Ztg.*, 44, 1874.

Treatment of Diphtheria and Scarlet Fever.—In a late number of the "Jahrbuch f. Kinderhlkde." Meyer describes his treatment of diphtheria with ice. Even when the children are very young and with infants under one year, he has them fed with small bits of ice, which are allowed to dissolve in the throat. In addition, he pours ice water on the tongue every few minutes. The ice should be very clean, and the artificial kind is the best. In very severe cases the external use of cold in the form of ice cravats is very suitable. It is also stated that under this treatment the fever generally yields, the membranes are thrown off, general infection of the system does not follow, and the disease rarely extends into the larynx. He employed cool baths in diphtheria to moderate excessive fever in one case, but in scarlet fever he found it generally of great advantage. When, however, the temperature exceeds 102.5° Fahr., tepid baths, varying between 71° and 81° Fahr., are to be used, and they may have as low a temperature as 64° Fahr. After the bath the temperature of the body remains reduced for a number of hours.—*Allg. Wien. Med. Ztg.*, 44, 1874.

Lymphatic Tumors of the Face.—Dr. Leoni describes a remarkable sort of affection that occurred in his own person, and the nature of which he can only suspect. One day his right upper lip commenced to swell until it became a tumor of considerable size. He could assign no cause for it, for he had received no injury there, nor had there been previous trouble of any kind. The swelling was not painful, but gave the sensation of great tension, as if it was in a state of erection. At the end of two hours it had disappeared as suddenly as it came. Subsequently, similar swellings occurred on two occasions, once in the same place, and once in the lower lip and chin, lasting in this last case from three to four hours. He tried in vain to reduce them by pressure and manipulation, and finally introduced an exploring needle through the mucous membrane of the mouth, thinking to evacuate the contents, if they were fluid. Nothing, however, escaped. Leoni thought there was no evidence to show that the tumors contained blood. It seemed more likely that they were lymphatic in character, and produced by some obstruction in the course of the lymphatic vessels. We had observed the same affection, in a less degree, in a young woman, at the commencement of her menstrual epoch.—*Nord. Med. Ark.*, vi., 2, 1874.

The Hydrate of Chloral to Arrest Putrefaction and Fermentation.—The experiments of Dujardin, Beaumetz, and Hirne show that the hydrate has a certain power in arresting fermentation, for the formation of lactic acid in milk was prevented by it and when only a one-per-cent. solution was used. The decomposition of urine was likewise prevented by a weak solution, so that at the end of a month it had undergone no change. As a local application, the writers found that it was excellent for foul wounds, gangrene of the skin or mucous membranes, cancerous sores, phagedenic chancres, and the like. They found in all cases that it produced no pain, destroyed the fetid odor, cleansed the surface, and promoted cicatrization. It seemed, therefore, specially adapted for a local application in carcinoma uteri. Judging from its power of preventing the decomposition of urine, they recommend it as an injection (one per cent.) in those diseases of the bladder that are accompanied by rapid decomposition of the urine.—*L'Union Medicale*, 1873. *Rundschau*.

Surgeon Eugene H. Abadie.—Surgeon Eugene H. Abadie of the United States Army, died recently in St. Louis. He was a native of France, and entered the medical service of the United States as assistant surgeon in 1836, being appointed from Pennsylvania. He received his commission as surgeon in 1853, and was honored with the rank of colonel by brevet, near the close of the war, in March, 1865. His period of active service was exceeded only by that of two other officers in the Medical Department.

Parmly—At his residence, 19 West Thirty-eighth street, Sunday, December 13, suddenly, of pneumonia, Dr. Eleazar Parmly, aged 77 years and 9 months.

Smith—At his residence, Mount Vernon, Ohio, December 15, Dr. Harvey W. Smith, formerly of this city, in the 49th year of his age.

Wright—Suddenly, in Brooklyn, N. Y., December 10, 1874, Albert Wright, M.D., aged 70 years and 8 months.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE WEEKLY MEDICAL RECORD.

With the present number we commence the weekly issue of The Medical Record. In so doing we trust we shall be meeting a want long felt not only in this city but elsewhere. When we consider the number of medical journals published in this city we have reason to congratulate ourselves that, as a profession, we are not far behind our European brethren. Before the war, we had in reality but one journal which deserved the name, and this expired with the *American Medical Times*, into which it had been merged. Since that time, at varying intervals, there have been established three monthlies, the New York Medical Journal, the American Chemist, and the Psychological and Medico-Legal Journal; one semi-annual, The Archives of Electrology and Neurology; three quarterlies, the New Remedies, The American Journal of Syphilography and Dermatology, and the Archives of Dermatology; and one semi-monthly, The Medical Record. All of these are well sustained by contributions, and have been reasonably successful. This certainly speaks well for medical journalism in this city, and is in strange contrast with the state of affairs fifteen years ago, when but one periodical could be supported, and that only by dint of much begging for money, and still more begging for communications. Professional sentiment has so far changed in favor of the necessity of medical journalism, that it not only supports the journals now in existence, but actually crowds their columns with communications. These periodicals, instead of soliciting contributions, have to apologize for want of space to insert such as are freely offered, and the inevitable consequence is, that much very valuable material is allowed to waste for want of utilization. We have been impressed with this fact for a long time past, and have on that account concluded that not only was there room for a weekly journal, but that the existence of such a periodical was every year becoming more and more a necessity. We have always believed in weekly medical journalism, and have striven for the past nine years to prepare The Record to occupy this field. To this end we have been content to work along quietly until the necessities of the occasion became apparent, and when the success of the journal was sufficiently well established to render the desired change pecuniarily safe. That time has now arrived, and we embark upon our new and long-cherished enterprise not without a reasonable hope that our efforts to make this journal a representative of its class will be successful.

New York may justly be considered a medical centre. Its hospitals, societies, colleges, and periodicals are all in a prosperous condition, and every year it is increasing its facilities for medical instruction and developing its resources for medical progress. The wealth of the city tempts the large majority of the best men of the country to cast their lot among us, and the lively competition to excel in the different departments of practice is visible in all their associations with each other. We venture to say that never before were we, medically speaking, in a more prosperous way, and that never before was there offered a better opportunity for laying the foundation of a prosperous weekly. While all the other periodicals can continue to work as heretofore in their respective spheres, there is such an abundance of material that could not be utilized by any other means, that we cannot conceive that we are trenching upon the rights of any of our brethren by making the change which we propose.

In entering this field of weekly medical journalism, in this city and at this time, we cannot fail to appreciate our responsibilities, and in the performance of the labors connected with our undertaking we are not unmindful of the necessity of appealing to such of our old friends as have helped us heretofore. To them, immeasurably more than to us, has the success of The Record been due. The first authorities in our land have liberally contributed their best productions to its columns, and many times we have been cheered by communications written especially for us by gentlemen in foreign countries. We have been honored by quotations in nearly every medical journal of the world, and have been the means of conveying the news of medical progress in this country to every section of the globe. At no time have we been denied the heartiest sympathy of the medical leaders of this city. We have endeavored to profit by their influence and counsel, and have studied to make the journal thoroughly representative of the profession of New York.

In its general editorial management it has been our aim to be strictly impartial, and every consideration has been secondary to that of ministering to the more pressing wants of the daily practitioner. Not bound to any clique, nor under the control of any special influence, we have tried to make The Record a thoroughly independent journal. In the discussion of all subjects, great and small, we have been impelled to exercise that spirit of honesty which seeks for the truth, and to be fearless in our denunciations of what we believe to be error. Believing that such a course best meets the desire of the profession, and is the only way to vindicate the rights of impartial criticism, we intend to continue it.

In regard to the contents of the journal, we do not desire to make any extravagant promises. Suffice it to say, that, with the help of an increased staff, we shall endeavor to take every opportunity to improve the facilities which New York affords for making it a first-class weekly.

THE PHYSICIAN AS A WITNESS.

With many medical men there is an ambition to make a reputation as experts in courts of law. The reason for this is doubtless in a great measure owing to the difficulties in the way of such a distinction. There is, perhaps, a laudable pride on the part of such gentlemen in being considered too smart for the cross-questioning counsel. Very few, however, appreciate the fact that a conceited and indiscreet witness is a legitimate prey to cross-examination, and that the avowed design on the part of the so-called persecuting lawyer is to prove to the jury that the doctor is an ignoramus and that his opinion is of no value. This can very readily be done by skilful manœuvering on the part of the attorney, and if the doctor is not extremely guarded in his replies he is always worsted. The advantage on the part of his interrogator must be acknowledged when we admit that it is always easier to ask questions than to answer them. Lawyers know this as well as physicians, but the jury is not always able to draw the proper line of discrimination. Legal gentlemen always have a high respect for the learned professions; but every consideration of this sort sinks in entire insignificance when the interests of their client are at stake. Professionally speaking, we have no right to expect any mercy from them, and we cannot, consequently, be too ready to protect ourselves. We must be ready to admit from the start that the fight is not a fair one, and prepare ourselves accordingly.

The Hon. John T. Hoffman, in an address recently delivered to the graduating class of the Albany Medical College, gives the following advice, which commends itself to every one at all interested not only in making an impression as an expert witness, but in saving his reputation as an ordinarily educated medical man:

"When you go upon the stand as a witness, go well informed, but not too full of learning in the matters about which you are to testify. Confine yourself to facts, and do not be forced into theories any further than you can help. Use the simplest language you can adopt, and omit as far as practicable purely professional terms and phrases. Speak English and not Latin, for the jurors are not ancient Romans. Remember that the witness-box is the place in which to tell the plain truth, not to display learning. Meet quick questions with slow answers. Answer long questions with few words. Above all, keep cool. . . ." These rules are very simple, are founded on the plainest common-sense, and yet how often are they violated!

MARINE HOSPITAL SERVICE.

In another column we publish a bill recently introduced in the Senate by Senator Cameron, to which we wish to call the attention of our readers. The intention of the said bill is to place the medical part of the Marine Hospital Service on a fair basis, and take it out of the lower regions of politics as much as possible. Ever since the Marine Hospital Service has had an existence there has been a great necessity for legislation upon the matter, and in the present effort there is a promise that a great deal of good will be accomplished.

THE ARMY STAFF RANK BILL.

The Committee of the American Medical Association are again before Congress with a bill for increasing the efficiency of the Army Medical Staff. Notwithstanding the defeat of last year, there is a determination on the part of the profession to test the merits of the case in another struggle; and every individual physician should feel enough interest in it to exert all his influence in the proper direction. We shall take occasion hereafter to discuss the merits of the bill in detail.

A BUILDING FOR THE ACADEMY OF MEDICINE.

At a recent meeting of the Academy of Medicine, to which the profession generally was invited, it was determined to secure a building for the accommodation of the different medical societies of the city. This, so far as it goes, is a good commencement, and if the proposed plan succeeds, it may be the foundation of an institution of which the medical fraternity of this city may be proud. After the habitation has been obtained, the difficulty will be in giving it a suitable name.

A DEPARTMENT FOR CHILDREN IN BELLEVUE.

The Medical Board of Bellevue Hospital has established a special department for the treatment of diseases of children. It is to be under the charge of Dr. A. Jacobi, one of the attending physicians recently appointed. There are no classes of disease more frequently met with by the practitioner, and none which require more careful, judicious, and skilful treatment than those belonging to early childhood. A want has long been felt for clinical instruction in this branch, and in such a large hospital as Bellevue the facilities offered are unequalled anywhere.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Nov. 25, 1874.

Dr. H. Knapp, President, in the Chair.

(Concluded from page 653, vol. ix.)

ANTERIOR STAPHYLOMA OF THE EYEBALL.

Dr. H. Knapp exhibited an eyeball which had been removed by operation and sent him by one of his former pupils, Dr. Swan M. Burnett, of Knoxville, Tenn. The patient, a boy 15 years of age, when 18 months old was struck in the eye by a piece of china-cup. A scar formed in the cornea and the pupil was closed. The eye was blind, but not misshapen until three or four years ago, from which time it steadily enlarged. It never was painful, nor caused inconvenience to the other eye, and was removed merely to remedy the deformity.

All the diameters of the globe are enlarged, the antero-posterior more than the others. There is a scar running nearly vertically across the whole cornea. A meridional section shows iris and lens capsule connected with the scar. The lens is shrunken and displaced, being united to the corneal scar by a cord of capsule. The cornea is enlarged. The sclerotic, between the margin of the cornea and the corona-ciliaris, is thinned and greatly distended. The ciliary body and posterior structures of the globe are in their natural position and apparently unchanged, with the exception of the optic nerve, which is deeply cupped. The distention of the globe is caused by the corneo-ciliary staphyloma, which is so manifest that the ora serrata is as remote from the cornea as it is from the optic disk. The enlarged parts of the sclerotic and cornea are covered with a thin layer of atrophic iris, which arises from the ciliary processes.

The specimen is interesting, not so much on account of the changes of the globe, for these are known well enough, as on account of the history of the case. A penetrating wound in early infancy had produced a dense cicatrix through the whole extent of the cornea, in which the iris and lens had been implicated. The eye had become blind, but retained its shape for ten years. Then it began to enlarge steadily, but never was tender nor caused irritation in its fellow. The case exemplifies the theory that wounds and cicatrices in the cornea, iris, and lens are not prone to excite sympathetic ophthalmia, as long as the ciliary body is not involved in the morbid changes.

Dr. Delafield remarked that pain in such eyes, was, in his opinion, due more to injury to the vitreous than to the ciliary body.

Dr. Knapp remarked that this was an observation new to him, and he thought that every specimen tending to elucidate that point was valuable. In regard to the matter of sympathetic irritation from wound of the vitreous, he related the case of a boy from whose vitreous he extracted a fragment of a cap, within three hours after the injury. The operation had been performed ten years ago, in Heidelberg, and up to last summer, when he last saw the case, there had been no trouble whatever with the other eye.

Dr. Delafield stated that his remark in regard to wound of the vitreous referred to the element of pain simply, but not to sympathetic irritation

Dr. Thomson referred to a case of wound of the vitreous in a lady under his charge, who had been free from sympathetic irritation for seventeen years.

The Society then went into executive session.

NEW YORK MEDICAL JOURNAL AND LIBRARY ASSOCIATION.

Stated Meeting, Nov. 27, 1874.

Dr. J. C. Peters, President, in the Chair.

NITRITE OF AMYL AND BELLADONNA IN DYSMENORRHŒA.

The paper for the evening was read by Dr. Mary Putnam Jacobi, upon "Nitrite of Amyl and Belladonna in Dysmenorrhœa."

The clinical history of three cases was given to illustrate the method of operation of the above remedies. All three were cases of severe spasmodic dysmenorrhœa. They were treated by administering belladonna for several days previous to the recurrence of menstruation, and nitrite of amyl by inhalation during the paroxysm. This treatment, it was believed, had a rational basis.

The argument in its support was founded upon the data furnished in the second case, in which were manifest three sets of phenomena:

(1.) Vomiting, pallor of skin, cold hands and feet.

(2.) Extraordinary peristaltic action of the intestines.

(3.) Spasmodic pain in the uterus.

All these point towards one element, namely, that of spasmodic contraction of blood-vessels.

First, the so-called sympathy between the uterus and the stomach, and between the stomach and brain, were fully considered in their dependence and interdependence with reference to the symptom, *vomiting.*

It was believed, reasoning from the experiments of Schiff and others, that the vomiting of pregnancy, vomiting of sea-sickness, and many cases analogous in character, was due to the same cause, namely, anæmia of the brain, producing spasmodic contraction of blood-vessels at its base.

It was farther argued that anæmia of the intestines produces contractions or increased peristalsis, due to spasmodic contraction of blood-vessels.

There are three conditions in which a hollow muscular organ can contract in the state of vacuity.

(1.) After direct irritation of its nerves.

(2.) After direct irritation of its muscular fibre.

(3.) After changes in its circulation.

A detailed account of six experiments was given. The experiments had been performed upon rabbits. The abdominal cavity was opened, the intestines drawn out and carefully protected in a bag of oil-silk, which was kept immersed in a vessel of warm water; the uterus exposed, and the abdominal aorta exposed. The aorta was then compressed with a ligature, and the result carefully noted.

Several waves of peristalsis ran *down* the rectum, but never in a contrary direction. Contraction of the uterus occurred, and was distinctly visible at the middle third of the organ. Upon removal of the ligature the contractions ceased. The time at which contractions appeared after compression of the aorta was made, also the duration of the contraction after compression had been removed, were carefully noted. The conclusion made from the experiments was, that tonic contractions of the uterus may be excited by occlusion of the aorta, and that such contractions continue from one to four minutes after compression has been removed. Clonic contractions also occurred, after the type of contractions of masses of smooth muscular fibre.

What bearing do the results of these experiments have upon the treatment of spasmodic dysmenorrhœa?

The pain in these cases is dependent upon tonic and clonic contraction of the uterus.

These, in turn, are dependent upon some cause. Of the conditions in which a hollow muscular organ can contract in a state of vacuity, direct irritation of muscular fibre and direct irritation of nerves were excluded. Consequently we are obliged to fall back upon changes in the circulation of the uterine walls. If the change of the blood-vessels passes to an irritation, spasmodic contraction must take place, and uterine contractions will be determined by local anæmia.

Spasmodic contraction of blood-vessels resulting from irritation of vaso-motor nerves is the cause of the pain of spasmodic dysmenorrhœa. It is upon these considerations that the remedies suggested are used. The *secondary* effect of belladonna is dilatation of the blood-vessels.

Belladonna is to be administered, therefore, previous to the occurrence of menstruation, for the reason that it is desirable to obtain the *secondary* effects of the remedy.

Nitrite of amyl is used for the purpose of relaxing blood-vessels. This is in accordance with the admitted physiological action of the remedy.

This method of treatment, of course, is more especially adapted to cases of spasmodic dysmenorrhœa; but it has been found, both in the experience of the author of the paper, and in that of others, that great relief may be afforded even in those cases in which the dysmenorrhœa depended upon displacements, constriction of the cervix, etc.

The method is, to administer belladonna in ordinary doses for several days previous to the occurrence of the menstrual flow, and when pain comes, to administer by inhalation from two to six drops of the nitrite of amyl p. r. n. In one case a single drop of amyl was all that was required.

Dr. Sell remarked that he had been in the habit of administering nitrite of amyl by the mouth, and had obtained just as good results as he had obtained when the remedy had been inhaled. He prescribed it in one-drop doses, combined with drachm doses of peppermint water, and repeated every half hour. In one case of dysmenorrhœa, and one only, he had used the nitrite of amyl, and in that case the patient was completely relieved of pain.

Drs. Pallen and Peaslee did not feel prepared to discuss the paper.

Annual Meeting, Dec. 4, 1874.

In absence of Dr. J. C. Peters, President, the Association was called to order by Vice-President Dr. Farnham.

The address of Dr. Peters, the retiring President (who had been unexpectedly called from the city), was read by the Corresponding Secretary of the Association.

The address was highly complimentary to the President elect, and also contained congratulatory reference to the continued success and prosperity of the Association.

After the reading,

Dr. Edmund R. Peaslee, President-elect, took the chair, and briefly responded to the address of the retiring President.

CYSTITIS, ITS SIGNS AND TREATMENT.

The subject for the evening was then presented by Dr. A. B. Crosby, upon "Cystitis, its Signs and Treatment."

Dr. Crosby remarked that he proposed to occupy one hour in the consideration of the subject of *chronic cystitis*, and more especially with reference to some points in its treatment.

Nothing new was expected to be added to our knowledge, on account of the thorough investigation and presentation of the subject made by previous writers.

Chronic cystitis was to be regarded rather as an effect than a disease *per se*. In the young and middle aged it was usually curable. In the old, however, and when certain organic changes have occurred in connection with the bladder itself, it was an exceedingly intractable disease; but often here the surgeon may do much to palliate the sufferings of the patient.

Causes.—Acute cystitis may become chronic. Anything which obstructs the free flow of urine from the bladder (decomposition of urine remaining in bladder takes place and excites inflammation).

Paralysis.—This results in retention; retention was very liable to be attended by over-distention of the bladder; this over-distention produces by pressure an anæmic condition of the capillaries of the walls of the bladder; sudden removal of the pressure, by means of the catheter, permitted the sudden return of blood, and inevitably hyperæmia, and frequently inflammation follows.

Excessive alkalinity of the urine, either artificial or accidental, or excessive acidity of the urine may give rise to chronic inflammation of the bladder.

Renal diseases, especially those which tend to suppuration.

Excessive diuresis was claimed by some to be a cause.

Presence of foreign bodies in the bladder, such as calculi and foreign growths.

Diseases of contiguous organs (bad cases of hemorrhoids and sometimes diseases of the uterus).

These are the essential causes.

Two distinct varieties were generally recognized.

(1.) Little more than an irritable condition of the bladder; (2.) A cystitis more severe and more persistent in its character.

In the first there was certainly hyperæmia and hyperæsthesia, if not real inflammatory action. There is frequent desire for micturition, increase in the amount of mucus, and almost inevitably present a certain amount of pus, although it requires the microscope to demonstrate it.

Any irritation can induce this condition. The removal of the cause almost always resulted in a speedy convalescence. This could be hastened by absolute rest, free use of warm-water injections, hip-baths, fomentation over perineum and hypogastrium, maintaining a soluble condition of the bowels, and administering alkalies, anodynes, and demulcents.

In the second variety of chronic cystitis there was a passive or congestive hyperæmia of the mucous lining of the bladder, attended with great irritability and over-distention of the walls of the capillaries. There was usually a certain amount of hyperæsthesia, but comparatively moderate in its character. There was an inordinate quantity of mucus and pus in the urine coming from a bladder thus inflamed. It was the condition known as the chronic catarrhal inflammation of the bladder. The urine contains a marked sediment, of semi-transparent, ropy, and tenacious material.

Some surgeons have considered the deposit to be purely mucus; others have regarded it as simply an exaggeration of the prostatic secretion; others still farther, that it was simply pus mingled with alkalies. It was doubtful whether either opinion was correct. There was pus, but it did not present the same appearance as did pus with an alkali outside of the body.

It had been claimed by some that the mucous membrane of the bladder has a perversion of the secretory power under these circumstances. The lining membrane was practically in that condition seen in catarrhal inflammation of the bronchial tubes, and that which was known as bronchorrhœa had marked points of resemblance to cystorrhœa, the term employed in connection with those cases of cystitis which are characterized by such an inordinate quantity of semi-transparent material.

With reference to treatment, a very great variety of plans had been devised. Almost every writer upon this subject ventured upon antiphlogistic treatment; but this should be rejected. The disease was essentially one of debility and relaxation, and the indications were to give to the patient certain tonic and astringent effects.

The treatment divided itself into local and constitutional.

With reference to *local* treatment: (1) free the lining membrane of the bladder from everything in the way of inorganic matter which may accumulate there; (2) cleanse the mucous membrane as thoroughly as possible.

Free the mucous membrane by introduction of catheter once or twice every twenty hours, if the patient was unable to empty his bladder completely, and then wash the bladder out with some form of injection. For this purpose an almost endless variety of injections had been recommended, and only some of the most serviceable would be mentioned.

Injections should be used at about the normal temperature of the body.

℞. Acetate of lead............ gr. $\frac{1}{6}$.
Water..................... ℥ i.
M.

℞. Nitrate of silver........... gr. i.
Water.................... ℥ viij.
M.

gradually increasing the silver until a strength of one grain to one drachm of water may be used.

There were those who believed that there was an excess of earthy phosphates, and that the sediment in the urine was liable to accumulate in the bladder; consequently they recommend the use of water acidulated with nitric acid as an injection, for the purpose of dissolving the phosphates.

℞. Nitric acid................. gtt. ij. to iv.
Lukewarm water.......... ℥ x.
M.

Simple warm water might be injected. The quantity of fluid injected should never exceed ℥ iij. some say. He did not believe that such a rule was to be generally adopted. If the injection was practised slowly, so as not to irritate the bladder by sudden rushes of the fluid, a much larger quantity can be borne without producing irritation. Any indication, however, that the distention gave increased pain, should of course warn the surgeon to diminish the quantity injected. Having made the injections, they should be allowed to remain from two to three minutes before being permitted to flow away.

Sometimes the urine is distinctly fetid. In such cases carbolic acid would be serviceable; used one drop of the saturated solution to a pint of water.

In those cases in which there is considerable pain present, anodyne substances might be injected.

Whatever anodynes were injected into the bladder, a small portion should be allowed to remain, in order for absorption to take place.

Whatever injection is used, it is well to observe precaution, and manipulate the bladder in the mildest manner possible. During the last three or four years he had used permanganate of potash by injection in those cases.

This substance was exceedingly rich in oxygen, and when it came in contact with pus, or organic matter, it tended to decomposition very rapidly. The oxygen being set free when in this nascent state, seized upon the organic germs and burned them up.

The salt was used of the strength of one-half grain to the ounce of water, and diminished in strength if pain, heat, or irritation is produced either at the time or just after the injection has been used. The injection, when it returned, was quite likely to be of a dusky appearance.

After injecting the bladder with the solution of the potash once or twice a day, according to circumstances, and continued for a few days, he had been accustomed to inject the bladder with water, acidulated with hydrochloric acid, in the strength of four to six drops to eight or ten ounces of water. The hydrochloric acid would dissolve the deposit of the potash, if any there be, and the patients are generally more markedly improved by alternating these injections.

Counter-irritation.—Fly-blisters have been said to be contra-indicated, but his experience had led him to believe that they would not give rise to any increase of the trouble. Hot poultice with mustard offers a very fine and moderate counter-irritation. Anodynes were especially indicated to relieve pain, diminish nervous irritation, and procure sleep. Warm hip-baths at bedtime were admirable. The bowels required careful attention, and should be kept in a soluble condition. For this purpose, inspissated ox-gall was very useful. The sacculi of the rectum should be kept perfectly free from fæcal matter. Upon the whole, the administration of *internal* remedies was unsatisfactory. When frequent desire to micturate was present, decoction of uva ursi was the best. When inflammatory action was slight, buchu, cubebs, copaiba, turpentine, have all answered a good purpose. If vegetable substances were employed we should use them *freely*, and they should be administered at short intervals if we would get the greatest benefit from them. Decoction of pareira brava was a favorite with many. When the cystitis was dependent upon obstruction, such as stricture of the urethra, triticum repens, ℥ i. to the pint of water, and taken within twenty-four hours, would be of much service. Demulcents were always in order. Shall the remedies be alkaline or acid? This is a question which sometimes troubles the young practitioner. Clinically it depends to a great extent upon the period of the disease which we have to treat.

During the earlier part of the disease he had been accustomed to use alkalies, such as liquor potassa, etc., combined with camphor mixture and sufficient opium to control pain. Later in the disease, when the discharge is large in quantity, acids had but little influence in changing the reaction of the urine. Nitro-muriatic acid, with quinine, might be of benefit by changing the tone of the system.

It was claimed that benzoic acid had the power, in these advanced stages, to render the urine acid.

Diet should be light and thoroughly nutritious.

Malt liquors are contra-indicated. In elderly persons alcohol did not particularly irritate the bladder; and certainly *gin*, associated with nux vomica, was very excellent in many cases. The surgeon should render himself certain that there was present no obstruction to the portal circulation. Absolute rest, and confining the patient to a perfectly equable temperature, were very essential.

Diathesis.—If there is markedly gouty or rheumatic diathesis, or malarial taint was present, you cannot hope for permanent benefit, unless you first combat the diathesis from which the patient is suffering.

DR. BRADLEY mentioned some cases in which the cystitis was dependent upon stricture of the urethra. He had divided the strictures agreeably to the suggestion of Dr. Otis, and the operation was followed by great relief. The injections used were nitric acid gtt. ij. to the ℥ i. of water, combined with large quantities of hyoscyamus.

DR. ROBERT NEWMAN advocated systematic dilatation of the bladder, for the purpose of overcoming the contraction that had occurred in the viscus as the result of the disease. He had had some patients who could not endure more than a tablespoonful at first, but dilation was carried on until the patient could retain one pint without inconvenience.

He also mentioned the fact that exceedingly strong solutions of nitrate of silver could be applied to ulcerated surfaces within the bladder by means of the endoscope, without producing undue irritation, when a very weak solution would produce great irritation introduced as an injection. Among the causes he mentioned the habit in our public schools of not permitting girls, especially, to go out when they desire to evacuate the bladder.

DR. SELL mentioned the fact that Dr. Heath, of London, was in the habit, in the treatment of cystitis in the female, of using nitrate of silver of the strength of one scruple to the ounce of water. It was applied by first dilating the urethra with the finger, and introducing the solution through a hard-rubber syringe.

In some cases simple dilatation of the urethra was sufficient to effect a cure.

DR. PEASLEE remarked that the item of rest, absolute rest, was very important in the treatment of chronic cystitis. In some cases in the female it becomes necessary to produce an artificial vesico-vaginal fistula. Sometimes it became necessary to keep such fistulæ open for a year. Then, if the bladder is much distended, the cystitis will be brought back again. This seemed to argue that dilatation was not, as a rule, admissible. With regard to the injection of morphine, it had been questioned whether the bladder had any power to absorb at all. But it seemed to him that the bladder had decided power of absorption, even where there was no reason for suspecting ulceration. He did not believe that cystorrhœa, bronchorrhœa, leucorrhœa, and those conditions characterized by an excessive discharge of secretion normally present were due to inflammation. They are due rather to passive congestion, and true inflammation is not reached.

DR. GARRISH closed the discussion.

* * *

DR. A. B. CROSBY, Professor of Anatomy at Bellevue Hosp. Med. College, is delivering a series of lectures on Physiology, as a part of the Cooper Union Free Lectures; and is to be followed by PROF. GEO. L. GOODALE, of Harvard College, who is to lecture on Botany. All the lectures of the latter course are to be illustrated by the use of the stereopticon.

NEW YORK ACADEMY OF MEDICINE.

Annual Meeting, December 3, 1874.

DR. AUSTIN FLINT, PRESIDENT, in the Chair.

MINUTES of previous meeting read and approved.

NOMINATION OF OFFICERS.

For President—Drs. Purple, Buck, J. R. Wood, Stone, and Barker.

For Vice-President—Drs. Gouverneur M. Smith, and R. A. Barry.

For Trustee—Drs. A. Flint, Anderson, Stone, Burroughs, and A. C. Post.

For Committee on Admission (one vacancy)—Drs. Blumenthal, Carroll, and C. B. Tucker.

For Committee on Medical Ethics (one vacancy)—Drs. Cheesman, Joel Foster, Stone, and Adams.

For Committee on Medical Education (one vacancy)—Drs. Gurdon Buck and Peaslee.

The Corresponding Secretary announced the reception of certain volumes.

Treasurer's report read and accepted, showing a balance in the treasury, November 16, 1874, of $558.13.

Trustees' report read and accepted, showing the assets of the Academy to be $15,009.

Report from Committee on Admission read and accepted, showing that eleven resident fellows, one honorary fellow, and five corresponding fellows had been elected during the past year.

The remaining annual reports and reports from sections were read and received.

REPORT OF COMMITTEE OF WAYS AND MEANS

was next presented by Dr. Anderson, showing that the amount of money now in the hands of the committee available for building purposes is $28,492. Report accepted.

The Academy took a recess of one hour for the purpose of discussing the question of securing a house for the Academy and the medical profession of the city.

Dr. Oliver White was called to the chair, and Dr. Ellsworth Eliot was made secretary.

Discussion was opened by Dr. Willard Parker, and continued by Drs. Barker, Peaslee, Anderson, Hubbard, Flint, Sayre, and Caro.

DR. FLINT offered the following resolution:—

Resolved, That it is the sense of the medical profession, as represented in this meeting, that the Committee of Ways and Means of the Academy of Medicine should, *without delay*, take steps to obtain a building suitable for the accommodation of the Academy and other medical societies of this city; and that it is also the sense of this meeting that the committee should feel themselves warranted, if necessary, in incurring a debt of ten or fifteen thousand dollars for that purpose.

The resolution was adopted.

The Committee of the Whole then arose and reported to the Academy the action taken.

The report was referred to the Committee on Ways and Means, as expressing the views of the profession represented in the meeting held, and with the request that the committee should report to the Academy as early as practicable. Adjourned.

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"HOSPITAL SUNDAY IN NEW YORK."—Bishop Potter has recommended that the collections taken in the Episcopal churches of this city, on the 27th of Dec., be devoted to the support of St. Luke's Hospital, which is in need of funds.

NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY.

Stated Meeting, November 16, 1874.

The President, Dr. Meredith Clymer, in the Chair.

Dr. J. W. S. Gouley presented some specimens of *curare*, and made some remarks on its sources of supply, history, and supposed composition, and its therapeutic uses. The South American Indians make at least two kinds, one for their own use, and one of inferior quality, for sale. The specimens exhibited were of the most esteemed variety, from the Rio Negro. The several diseases in which it has been tried were named.

Dr. E. R. Squibb remarked that the curare hitherto used was obtained from various sources, and in some specimens strychnia and brucia had been detected. Being of such variable composition the physiological action must greatly vary, and hence, he thought, curare could not be brought into general therapeutic use. Of any given specimen, the dose can only be ascertained by first showing the physiological effects. Even if the alkaloid were discovered, it could not be produced in sufficient quantity for general use.

Dr. J. W. S. Arnold had noticed that in the same gourd there was a weaker yellowish-gray external layer, and an anterior dark glutinous mass of much greater strength. He had noticed, too, that the poisonous dose was variable for different animals of the same species.

Dr. W. A. Hammond had obtained, some fourteen years ago, a specimen of curare of the kind known as *corroval*, the action of which differed markedly from that of other varieties. Ordinary curare spares the heart whilst paralyzing the voluntary muscles. The primary effect of corroval is to stop the heart. He had had no experience with ordinary curare; but in a case of traumatic tetanus in a colored boy he had tried hypodermically corroval; the effect was to lessen the spasms, and markedly retard the pulse; after the third dose this retardation went on to failure. He believed curare to be of purely vegetable composition, as with the microscope he had failed to find animal débris.

Dr. J. C. Dalton said he could corroborate what had been said concerning the different effects of the different specimens of curare. There is probably no regular formula for its preparation, each tribe having its own secret. It is evidently an extract, containing a large amount of vegetable matter. The failure to detect animal débris with the microscope might be accounted for by their destruction in the manufacturing process. Its action resembled that of an animal poison. He had noticed the difference between ordinary curare and corroval in the influence of the latter on the heart. [Dr. D. exhibited several specimens of curare, some of which, though fifteen years old, had been lately used with prompt effect.] He thought that the great uncertainty of the substance was a bar against its therapeutic use.

Further remarks were made by Dr. A. Flint, jr., E. R. Squibb, J. C. Dalton, W. A. Hammond, and Beard.

Dr. L. Duncan Bulkley read a paper on "The Relations of the Nervous System to Diseases of the Skin."

After briefly reviewing the *microscopic anatomy* of the skin, the author passed to the close physiological relations between the skin and the other organs, evidently the result of neural connection, as shown in the various conditions cited, and then mentioned the *pathological* observations which were found to be conclusive as regards the close relations between nerve influence and the nutritive changes in the skin, on which he rested his argument for the neuro-pathology of so many skin diseases. Whilst nerve-section, or nerve-abnegation is incapable of exciting these disorders, nerve-irritation is abundantly able to do so; and it is nerve-irritation which is excited by the deposits of leprosy and syphilis, or by the circulation of the effete products of gout, rheumatism, scrofula, etc., or the ill-assimilated elements in dyspepsia, constipation, oxaluria, and the like. A large number of skin diseases may be the result of reflex nervous action. The nerve elements in eczema, urticaria, pruritus, prurigo, erythema, etc., are plain enough to make us desire a fuller knowledge of their relations.

Remarks were made upon Dr. Bulkley's paper by Drs. W. H. Draper, E. L. Keyes, etc. The Society, after going into executive session for the nomination of officers for the ensuing year, adjourned.

Correspondence.

INCISED WOUND OF TENDO-ACHILLIS.

St. Peter's Hospital, 54 Berners Street,
London, W., December 14, 1874.

To the Editor of The Medical Record, New York.

My dear Sir:—Whilst in London, for hospital observation, being honored in the serving as house-surgeon to the Stone Hospital, I casually overlooked the files of The Medical Record in the library of the Royal College of Surgeons, whilst there yesterday, and accidentally fell upon an article from T. H. Kearney, M.D., Professor Principles of Surgery Miami Medical College, Cincinnati, O., in the July 15th, 1874, number, referring at length to a case of incised wound of the tendo-Achillis, reported by me before the Medical Board E. D. New York, and published as part of their "Proceedings" in the May 15th, 1874, number of The Record.

For the sake of the almost twin-like resemblance of the cases there referred to, except alone the history of the professional services rendered to our patients—in Dr. Kearney's case I believe about three (3) months, in my case not three (3) weeks—the facts, as far as there given cannot, I regret to say, be modified by anything known later as to my particular case, as it was an instance of "Poor preach, poor pay," my patient as studiously eluding my professional eye as the stony gaze of my disappointed collector.

Geo. H. Mitchell, M.D.

◆

Puerperal Fever in the New Maternity at Bonn.—In a letter to *The Lancet*, Nov. 28, 1874, a correspondent writes, concerning the new Gynæcological Institute at Bonn:

"It is a singular fact that puerperal fever broke out immediately after the opening of the hospital, and six patients died from it, while since that time there has not been a single case of the disease."

◆

Extirpation of the Larynx.—Professor Billroth performed this operation for the second time on November 11th, in the General Hospital of Vienna, on a man, aged fifty, suffering from epithelioma of the larynx. The patient died at midnight, on the 16th, apparently from hypostatic pneumonia.

Medical Items and News.

Marine Hospital Service.—The following Bill, to promote economy and efficiency in the Marine Hospital Service, has been introduced into the Senate by Senator Cameron:—

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury shall cause to be prepared a schedule of the average number of seamen required in the safe and ordinary navigation of registered, enrolled, and licensed vessels of the United States, basing such schedule upon the differences in rig, tonnage, and kind of traffic. And hospital dues at the rate and for the periods prescribed in sections 4585 and 4587 of *The Revised Statutes of the United States* shall be assessed and collected, from the master or owner of each vessel subject to such dues, upon the average number of seamen as set forth in said schedule: *Provided*, That nothing herein contained shall be held to debar masters or owners of vessels from deducting such dues from each seaman's wages, as by law now authorized.

Sec. 2. That the term "seaman," wherever employed in legislation relating to the Marine Hospital Service, shall be held to include any person employed on board, in the care, preservation or navigation of any vessel; or in the service, on board, of those engaged in such care, preservation, or navigation.

Sec. 3. That the Secretary of the Treasury may rent or lease such marine hospital buildings and the lands appertaining thereto, as he may deem advisable in the interests of the marine hospital service; and the proceeds of such rents or leases are hereby appropriated for the said service.

Sec. 4. That insane patients of said service shall be admitted into the Government Hospital for the Insane upon the order of the Secretary of the Treasury; and shall be cared for therein until cured or until removed by the same authority; and the charge for each such patient shall not exceed four dollars and fifty cents per week, which charge shall be paid out of the marine hospital fund.

Sec. 5. That sick and disabled seamen of foreign vessels, and of vessels not subject to hospital dues, may be cared for by the marine hospital service at such rates and under such regulations as the Secretary of the Treasury may prescribe.

Sec. 6. That the corps of medical officers of the marine hospital service shall consist of one supervising surgeon,   surgeons, and   assistant surgeons, all of whom shall be appointed by the President, by and with the advice and consent of the Senate, and upon the recommendation of the Secretary of the Treasury after such examination into professional qualifications as he may from time to time direct.

Sec. 7. That the compensation of said officers shall be paid out of the marine hospital fund, at the following rates: the supervising surgeon,   dollars per year; surgeons not more than   dollars per year, nor less than   dollars per year each; assistant surgeons not more than   dollars per year each. And the Secretary of the Treasury may prescribe the rate of pay for surgeons and assistant surgeons within these limits, and in accordance with the nature and extent of the duties assigned.

Sec. 8. That all acts and parts of acts inconsistent with this act are hereby repealed.

Dr. John P. Gray, Medical Superintendent of the State Lunatic Asylum at Utica, New York, will commence on Tuesday, the 5th inst., at 1.30 p.m., a series of lectures at the Bellevue Hospital Medical College on Diseases of the Brain, the Mind, and the Nervous System, to which the profession are invited. The dates and subjects of the lectures are as follows:—Jan. 5th, General Considerations, and Terms used; Jan. 12th and 19th, Etiology, Forms of Insanity and Diagnosis; Jan. 26th, Pathology, with Illustrations; Feb. 2d, Treatment and Prognosis.

New Members of the Medical Society of the County of New York.—At the stated meeting held Dec. 28, the following gentlemen were admitted to membership: Stephen De Wolfe, 138 W. 37th St., a graduate in medicine at the Univ. of Pennsylvania in 1845; William H. Farrington, 7 W. 45th St., a graduate in medicine at the Bellevue Hosp. Med. Col. in 1872; Ezra S. McClellan, a licentiate of the State Medical Society in 1874; Frank D. Beane, 217 W. 10th St., a graduate in medicine at Columbia Medical College in 1871, and at Bellevue Hosp. Med. College in 1874; and Joseph D. Bryant, 28 W. 36th St., a graduate in medicine at Bellevue Hosp. Med. College in 1868.

The Vaccinating Corps of the Board of Health have, within the past two months, visited all the tenement-houses on the avenues in this city between Eighty-sixth St. on the north, and Bleecker and Canal Sts. on the south, and measures, it is said, are being taken to examine, as far as possible, after a suitable time, all infants certified to have been born in the city, and insure their proper vaccination.

Medical Graduates.—The Medical Colleges of the United States graduated in the year 1874 three thousand students.

Medical Receptions in New York.—Some of the medical gentlemen of this city have issued invitations for weekly evening receptions at their houses during the winter.

Dr. Mary Putnam Jacobi, during the recent meeting of the New York Pathological Society, temporarily occupied the chair during the presentation of a specimen by the president. This is one way of answering the question of women's rights in medicine.

The *London Lancet* nets an annual income of nearly twenty-five thousand dollars. So much for being independent.

The Journal of Psychological Medicine, which was edited by the late Forbes Winslow, is to be published semi-annually, under the editorship of Dr. Lyttleton S. Forbes Winslow, son of the former.

The Medical Faculty of the University of Bishop's College, of Montreal—now in its fourth year—has been placed on the list of medical schools recognized by the Royal College of Surgeons of England.

The Managers of the New York Infant Asylum, (24 Clinton Place, and corner Tenth avenue and Sixty-first street), are to have their annual ball at the Academy of Music on the 14th inst.

Dr. Samuel T. Hubbard.—At the last meeting of the College of Physicians and Surgeons, Dr. Samuel T. Hubbard was elected a trustee, in place of Dr. Abram DuBois, resigned.

Professor Austin Flint, Jr., has been appointed Surgeon-General of the State of New York, on the Staff of Governor Tilden, newly elected.

Original Communications.

EFFECTS OF THE

CONTINUOUS ACTION OF A HIGH TEMPERATURE ON THE NATIVES OF TEMPERATE CLIMATES,

AS JUDGED BY THAT OF THE

LOWER RIO GRANDE REGION.

By P. F. HARVEY, M.D.,

ASSISTANT SURGEON U.S.A.

The subject of climate, in its bearing upon the vital processes of the human race, is one of great interest to the profession, and our country, embracing an absolute range of temperature and a diversity of climate not much exceeded by any in the world, affords opportunities proportionate thereto for its study. Perhaps no class of men have better opportunities for the prosecution of this study than our army surgeons, whose field of duty and observation is commensurate with our territory.

It is doubtful if individual man is capable of adapting himself to every contingency of climate; it is certain that a protracted residence in hot and malarious regions exercises a persistent deleterious influence on most, if not all, northern constitutions. The races of Northern Europe find Louisiana an extreme climate, and they and their descendants are no longer to be recognized after prolonged residence there. Acclimation to malaria is a myth; its pernicious effects upon the human frame are perceptible at once, and the longer the system is exposed to such action the more thorough its subjection. A European transplanted to the South, "complains bitterly of the heat, and becomes tanned; his plump, plethoric frame becomes attenuated; his blood loses fibrine and red globules; his mind and body become sluggish; gray hairs and other marks show that age has come on prematurely—the man of forty looks fifty years of age; the average duration of life is shortened, as shown by insurance tables, and the race in time would be exterminated if cut off from fresh supplies of emigrants from the home country." "The European in the Antilles *struggles with existence*." Morell tells us that the European inhabitants of Jamaica, of Cuba, of Hispaniola, etc., have made no progress since their establishment there. The mortality among the troops and officers of the English army is greatest among those who have remained longest in India. Such is the graphic and no doubt faithful picture of the effects produced by the combined and continuous action of malaria and a high temperature on the natives of temperate climates, drawn by some of the best medical writers of the age.

The injurious effects of a high temperature *alone* upon the natives of colder climates, while not so speedy, are eventually manifest in most cases. "When an Englishman is placed in the most beautiful part of Bengal or Jamaica, *where malaria does not exist*, he may live, with tolerable degree of comfort, his threescore years and ten, but he ceases to be the healthy individual he once was, and his descendants degenerate."—(Aitken.)

Many parts of Africa and India undoubtedly furnish climates more deadly to man than any to be found in this country; but the injurious effects upon the health of the northern native exerted by the climate of some sections of our Southern States is much greater than is usually believed. I speak from an experience of six years passed mainly under the poisonous influence of malaria in the swamps of Louisiana and the exhausting heats of the lower Rio Grande. The deleterious action of malaria on the health is well understood and universally acknowledged by competent observers in this country; but the masses, while they recognize its hurtful nature, are scarcely aware of the destructive ravages it is capable of working in a comparatively short time, and that notwithstanding the adoption of precautionary measures. It is not, however, my intention to enlarge upon this point. The subject is well and fully represented in the writings of others. As premised, what I desire to show is the slower but not less sure deterioration wrought upon the constitutions of northern born people by the *pure unadulterated heat* of a hot climate, *free* from malaria, basing my remarks largely upon the results of personal experience and observation in the basin of the lower Rio Grande. During my stay in that section there must have been a remarkably small evolution of malaria, as I perceived none of its characteristic effects upon the troops; neither were the conditions favorable to its production. The soil is sandy and alkaline, and supports a scant vegetation, stunted mezquite (*algarobia glandulosa*) and cactus (*opuntia*) constituting the main growth. The rain-fall was confined chiefly to the autumn months, the meteorological register at Ringgold Barracks showing the annual fall to have amounted to about ten inches. The habit among the Mexicans of curing their beef in the open air showed that there was but a trifling amount of atmospheric moisture, and that desiccation rather than putrefaction of animal and vegetable substances took place. The agent above all others which tended to the production of disease was the excessive heat, and it performed its work in an insidious manner, but ultimately sufficiently evident to any not wilfully blind. The register at Ringgold Barracks showed the mean annual temperature at that point to be about 76° Fahr., only one degree cooler than that of Vera Cruz, and only 3° cooler than that of some places in the vicinity of the equator. The mean temperature of the spring months at Ringgold Barracks was about the same as that of the same season at Havana, but the summers were 5° hotter than those of the latter place. At Singapore, Malacca, under the equator (nearly) the mercury never rises higher than 85°. At Ringgold Barracks it was not a rarity to see it 25° higher than that, or 110° in the shade. That post is situated between the isothermal lines of 70° and 80°, corresponding to the central portion of Egypt.

The actual temperature to which persons are exposed is not accurately represented by a thermometer placed in the shade and screened from solar reflections. Many terrestrial and atmospheric conditions combine to affect the bodily temperature without materially affecting that represented by the thermometer. Some such were in operation at Ringgold Barracks. As is well known, heat is absorbed in different amounts by different soils. Sand containing lime possesses the greatest absorbing power. Herschel observed the temperature of the sand at the Cape of Good Hope to be no less than 159° Fahr. At Ringgold Barracks a thermometer recording over 140° Fahr. was exposed to the sun in the angle of a light-colored building where the reflection was considerable, and left for a few minutes. The mercurial column ran rapidly to the end of the tube, and meeting with resistance burst the bulb. The soil in the vicinity of Ringgold Barracks is composed chiefly of sand containing lime in considerable quantity. In color it is light, and the reflection of the hot as well as the light rays of the sun is greatest from such soils. Hot winds, comparable to the simooms of Arabia, occasionally blew during the summer, generated by the extreme heat of the parched plains of Mexico. That Ringgold Barracks is situated in one of the hottest parts of our country is sufficiently evident from the meteorological register kept at that post, a short synopsis of which for the years 1871 and 1873 I give below:

1871.	Mean temp. in the shade.	Maximum in the shade.	Minimum in the shade.
Spring	78.45°	109°	42°
Summer...	88.88	105	72
Autumn ...	74.57	99	42
Winter	60.86	92	32
1873.			
Spring	75.06	106	30
Summer...	86.64	105	65
Autumn ...	73.66	99	32
Winter.....	61.69	94	20 unusually low.

The mean maximum temperature for July, 1871, in round numbers was 102°! Can such an elevated temperature act otherwise than injuriously upon the races of the north?

It is not considered essential to the object in view to cite special cases. This could be easily done if deemed necessary; but a statement in general terms covering the field of my observation will, it is believed, meet the necessary requirements.

The question of diet is one of great importance in its bearing upon the health of persons from the North living on the lower Texan frontier. The system manifests a natural craving for a dietary in accordance with the temperature in which an individual is placed, provided the appetite is unperverted. In countries where nature furnishes a superabundance of heat the calorifacient articles of aliment are undoubtedly hurtful, and cooling fruits and vegetables the natural food of man. At Ringgold Barracks, inferior melons during the summer and oranges during the winter were practically the only fruits obtainable. Fresh vegetables were extremely scarce, while meat was furnished at low rates and in superabundance. Hence the diet may be looked upon as coöperating somewhat with the climatic influences, but to what extent I am unable to say. The natives themselves, living on a very simple diet, are in the main dwarfed in stature, and not noted for longevity. Few specimens of hale old age were met with among them.

The most noticeable effect that I observed produced upon the systems of strangers by the excessive and prolonged heat was simple general debility, a weakening of the bodily functions, marked by a diminution of the assimilative and digestive powers, and resulting in the loss of weight, and anæmia. Iron and tonics constituted per force a large percentage of the medicine used in treating the sick. At one time during my stay a chalybeate preparation was needed, and daily used by every lady in the garrison.

The sick report exhibited but little if any evidence of unusual unhealthfulness of the climate; for while the men were not subject to acute disorders, the evidence of a lowering of their physical standard was nevertheless noticeable in their general appearance. Although ostensibly absent, the enemy working insidiously at the foundations of health was really present in a character as dangerous as that of his more tangible forms. This remark, as my remarks generally, apply to white troops and persons, for both white and colored companies were on duty at the post during my stay; the climate, to the best of my judgment, agreeing with the latter.

Rheumatism and neuralgia stand next in the category of prevalent diseases, and were doubtless the outgrowth of debility and mal-assimilation. Neuralgia of the maxillary branches of the fifth pair was due in some instances to carious teeth; but the majority of such cases could not be traced to such a cause. Tonics and chalybeates were the remedies attended with most success in its treatment.

Several cases of consumption came under my observation. Two were instances of invalids seeking a climate which they thought would be beneficial to them. Both the latter were rapidly fatal. Six cases were local, and two of them terminated fatally during my stay. These facts, and others relative to the climate of which I speak, convince me that it is not adapted to a phthisical patient, or to one so inclined. In fact, I regard it as one of the most unfavorable portions of our country as a sanitarium for consumptives, or even for the weakly and delicate persons who seek a mild and genial place of resort for the winter season. Another circumstance which militates against the adoption of this climate by consumptives during winter, is its variability. Sudden changes from an enervating heat to a temperature nearly, or quite, as low as the freezing-point, take place frequently during the winter months. In my experience, a fall of 40° inside of twelve hours was not an unusual occurrence. Strong winds were frequent throughout the year, and during their prevalence the atmosphere was so charged with fine particles of sand as to be extremely irritating to susceptible lungs. There is little doubt in my mind that this climate has the effect of hastening tubercular deposit, or caseiform infiltration, in persons of a phthisical habit, if not of actually developing consumption *de novo*.

The usual representations of travellers concerning the deleterious effects of alcohol upon the system in health in hot countries, were fully confirmed by its effects upon those addicted to its use at Ringgold Barracks. Any use of alcohol, except as a diffusible stimulant in adynamic forms of disease, or in small physiological quantities, such as found by Anstie to be assimilated by the tissues, was promptly resented by biliary and digestive perturbations and a general lowering of the physical standard. Drinking-men paid speedy and heavy penalty for their excesses—a retribution easily comprehended when we recall the fact of diminished consumption of carbon in the blood, connected with an increased degree of temperature. In a colder climate, this substance, instead of assuming the *rôle* of a toxic agent, might have been beneficial by conferring needed warmth through the circulatory apparatus. I think alcohol must be regarded as of practically little value as a supporting or restorative agent in hot climates. The idea that its daily use enables the system to resist to any extent the effects of heat, I am satisfied is erroneous, for the reason that the nutritive metamorphoses, already probably diminished by the high temperature, are further retarded by the depressing action of alcohol. A diminution of the cutaneous transpiration, which it is asserted by good authority is caused by alcohol, prevents that evaporation from the surface of the body so vital to comfort in hot climates. I think it may safely be asserted that those addicted to the use of alcoholic spirits show much sooner the marks of age in a hot than in a temperate climate; and that, rather than as a force-generator in hot climates, alcohol acts decidedly as a weakening agent upon the human machine. This is, perhaps, in part explained by the consideration that the system in a colder climate, being invigorated, possesses a greater resiliency and greater powers of resistance. Light subacid dinner-wines were not open to the objections that applied to ardent spirits. I found that claret could be used in moderation without disadvantage, and in some cases with decided benefit.

The increase of bodily temperature which may occur when a native of a temperate climate passes into a hot climate has not been accurately determined, although the researches of Davy, according to Flint, Jr., show an increase in the tropics of 0.5° to 3°. The system, up to a certain point, has the faculty of maintaining a normal equilibrium by evaporation of cutaneous moisture and diminished nutritive changes; but slight variations of health affect the integrity of the system in this respect, and a temperature above blood-heat, acting for months upon the body of an unacclimated person, may sooner or later induce a degree of bodily heat beyond the normal standard—a condition which must influence in a damaging manner the physical functions. My residence at Ringgold Barracks gave me practical illustration of this. During the heated term, and when the temperature daily rose to that of the blood and beyond it, a sense of discomfort from abnormal heat oppressed me. coming on after meridian, augmented by the increased circulatory activity after dinner, and diminishing towards midnight. On several occasions, when the heat was unusually high, its effect upon me was similar to that of a febricula, characterized by increased heat of the skin, accelerated pulse, and lassitude.

The effects of heat are by no means identical in all cases. The vigorous resist its effects longer than the feeble. Emaciation, or, at least, loss of weight, occurs as a rule; but corpulence sometimes forms an exception, and persons who are inclined to obesity are not so apt to exhibit the unfavorable effects of a high temperature so soon as the majority of others. This is due, perhaps, to the smaller nutritive wants of persons of this habit of body. Still, the natural tendency to corpulence is apt to be increased in a hot climate from indolent and sedentary habits, and the undue accumulation of fat is fraught with as much danger as the opposite condition. The vital energies suffer in both cases. There may be individuals who, from their peculiar habits of body, can accommodate themselves to the change from a temperate to a hot climate, suffering little or none of those injurious modifications of health which have been noticed as usually produced by such a transition. I cannot say that I ever observed an instance of this kind, although such a case is not more impossible than that of an individual of perfect physical soundness and total exemption from all the ills to which human flesh is heir.

From the nature of my experience, the following conclusions appear to me to be valid:

1st. That certain parts of our country are characterized by climatic conditions, to which, as a rule, the northern native is incapable of adaptation.

2d. That acclimation to malaria is an utter impossibility.

3d. That the unaided heat of a hot climate, acting continuously upon the systems of the natives of temperate climates, exerts, as a rule, a pernicious effect, causing impairment of the functions of digestion, assimilation, and sanguification, inducing more or less anæmia, diminution of the number of respirations, an increase of the action of the heart, loss of weight, premature blanching and loss of the hair, a decrease of mental and physical vigor, and, to some extent, a shortening of life.

Fort Preble, Maine.

THE COLD-WATER COIL

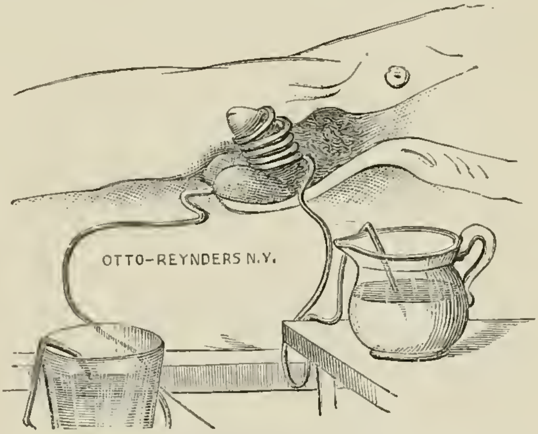
IN INFLAMMATION OF THE EXTERNAL MALE GENITAL APPARATUS—AND AS AN ANTI-PHLOGISTIC AFTER OPERATIONS ON THE PENIS.

By F. N. OTIS, M.D.,

PROF. OF GENITO-URINARY DISEASES IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

The apparatus here represented, which I have designated the "Cold-Water Coil," is formed of a line of the small-sized India rubber tubing of 1-16 of an inch calibre, and six or seven yards in length. At the middle portion this tubing is coiled upon itself, so that, by half a dozen turns or more, it presents sufficient capacity to loosely encircle the entire penis or scrotum.

This coil, with the length of tubing proceeding from it, forms an apparatus through which, on placing one extremity of the tubing in a bowl or tumbler of ice-water, exhausting its contained air (by suction, or by drawing the tube through the finger), a siphonic current is established through the coil. The discharge-pipe being placed on a lower plane than the water supply, the current may be kept up until the vessel is emptied.



The rapidity of the flow can be regulated either by raising or lowering the end of either tube, which is the simpler plan; but the more convenient one is by a tapering, double silver tube, attached to the discharge pipe, a sponge being fitted to the inner tube. This sponge, when the inner tube is pushed down into the smaller end of the outer tube, becomes compressed and gradually obstructs the flow of water, until not a drop will exude. This contrivance may be regulated so that either a free stream can pass, or that the single drops shall follow each other, more or less rapidly, with the regularity and precision of a time-piece.

By means of this arrangement, I have been able to apply cold to the penis or scrotum continuously and conveniently both to the patient and myself. The coils of tubing are retained in position by a band of cotton or linen cloth. A ready method of constructing this apparatus is by placing a strip of thin cloth, six inches in length and two in breadth, lengthwise, upon a large speculum or a four or six oz. vial. The tubing, taken at the middle of a piece six or seven yards long, is wound around the vial, and, after the requisite number of turns are made, the projecting ends of the cloth are doubled over the coils and stitched to the under layer between the turns of tubing. If, after completion, the turns are found too small, they may be readily enlarged by drawing the tubing through the cloth to any desired extent.

I have found this simple contrivance of essential service in the acute form of gonorrhœa, reducing inflammatory action promptly, and thus giving relief to painful micturition and erections.

It has proved of great value in keeping down inflammation and in preventing erections after the operation of circumcision. I habitually use it for the same purpose in operations for stricture, and with results more prompt and satisfactory than those hitherto attained by any medication or application, with which I am familiar.

CASE OF CONTINUED (TYPHOID?) FEVER.

By G. PIERREPONT DAVIS, M.D.,
HARTFORD, CONN.

On the 9th of September I was called to see a mulatto boy, nineteen years old, who had come to Hartford from Washington, D. C., last June. He had never had intermittent fever, though he was reported by his friends to have had secondary syphilis.

I learned that with the exception of slightly loose bowels for two days, he had been quite well up to the afternoon previous, when, after playing ball, he came in, complaining of headache and weakness.

At the time of my visit he was suffering from frontal headache. His tongue presented a thick, yellow coat; the conjunctivæ were yellow, and though he was not in bed, was quite weak, having no appetite for food. Close questioning produced an admission of slight chilly feelings, but there were neither pain in the limbs, hyperæsthesia, nausea, abdominal pain, or tenderness, nor eruption. The temperature was between 103° and 104°, though the pulse was but little accelerated. I gave the patient about ten grains of calomel, which caused the bowels to move twice.

The next day, September 10, I found him in bed and very weak. Other symptoms were as before, *i.e.*, slight looseness of the bowels, not amounting to diarrhœa; pupils natural; pulse and respiration normal, except a little acceleration of the former. The temperature was 105¼°. Ordered twelve grains of quinine morning and evening.

The next day, September 11, he was much the same, having passed a sleepless night. There were some delirium and frequent and profuse epistaxis, to which latter, however, he is constitutionally subject. The temperature in the morning was 104°, in the evening 106¼°. The pulse was about 120.

September 12.—The pulse is about the same to-day as yesterday, and the temperature in the morning 103¼°, in the evening 105¼°. Efforts to produce sleep since the night of the 10th have been fruitless. Dover's powder, hydrate of chloral, and bromide of potassium in fifteen-grain doses every fifteen minutes have been tried faithfully. The patient is quite delirious, insisting on getting up and dressing. He has been frequently bathed with cold water and alcohol since the fever has been so high. The bowels have moved every day, occasionally two or three times, with a little tendency to looseness.

September 13.—There is furious delirium, the patient striking his attendants violently with his fists. Aside from this, nothing points to meningeal disease. The temperature is 100½°, having fallen nearly five degrees since last night. The pulse is less than 100. Still, apart from this, no improvement is apparent. The patient has emaciated strikingly.

This is the first remission that has occurred in the fever since the beginning of the sickness, on the positive assurance of the attendants. He has sweat a great deal, and almost constantly. As he had had no sleep for sixty hours, and the delirium was at this time exceedingly active, I was obliged to exhibit chloroform, and under the influence of this he slept for three hours, and awoke rational and apparently better. In the afternoon, the temperature being 98¼°, he had fifteen grains of quinine.

On the morning of the 14th, I found that the patient had enjoyed a fair night, but was still a little wandering at times. During the worst of the delirium he has had frequent rational intervals. The temperature was 97½°, and the pulse less than 100.

There have been neither bronchitis, cough, nor hurried respiration; no abdominal tenderness or tumefaction, though on two occasions I detected slight gurgling in the right iliac fossa. He admitted on one occasion some tenderness over the border of the liver. There has been no eruption. The bowels moved yesterday in the evening, the stool being of a perfectly healthy character. The tongue, which has never been dry, is thickly covered with a brownish moist coating. The patient is determined to get up.

In the evening I found that he had slept soundly all day, and sweat profusely, being apparently much better. The pulse was 74, and the temperature 98°. He has had fifteen grains of quinine to-day, both morning and evening.

On the 15th, the temperature was 97°, and the pulse 50. He was sweating profusely, and had had two small and rather loose movements toward morning. Slept well all night, and was still sleeping soundly. To-day he had 7½ grains of the quinine night and morning.

September 16.—From this time he continued steadily to improve.

Sat up on the 16th, and on the 17th the tongue had made considerable progress toward cleaning, a process that was begun on the 15th.

The natural pulse seems to be in this individual about 60.

I enjoyed in this case the advantage of consultation with my friend Dr. Lyon, of this city. The diagnosis, although it at first pointed to typhoid fever, was by no means clear, on account of the rapidity with which the temperature reached a great height, contrary to the rules ordinarily laid down by writers on thermometry, for typhoid fever. We were obliged to exclude meningitis and malarial fever, and so were left in doubt.

Happening at this time, however, to read in the *Supplement to the Medical News and Library* for August, an abstract of Prof. Jürgensen's lecture on the "Slighter Forms of Typhoid Fever," I was struck with the similarity of the cases there described and the one I have just related.

On this account, and from the fact that I have seen none reported in this country, I am tempted to give publicity to the case.

It is perhaps proper to remark, that we are seeing typhoid fever at this time in Hartford with some frequency.

RESECTION CONSIDERED AS A REMEDY FOR ABDUCTION OF THE GREAT TOE, HALLUX VALGUS, AND BUNION.

By ASSISTANT-SURGEON A. C. GIRARD,

U. S. A.

I SELECT the above title for this brief notice, because it naturally calls the reader's attention to the very able article of Dr. A. Rose, of New York, in your No. 200, April 15, 1874, under the same heading. As the merits of the operation are fully discussed in it, I shall confine myself to the report of an additional case operated on successfully after Dr. Rose's method.

Sergeant J. M., æt. 42, presented himself with an extreme case of abduction of the great toe of the left foot, of several years' standing, with a large and painful bunion, which incapacitated him for duty. In consultation with Surgeon B. J. D. Irwin, U. S. A., this latter drew my attention to the above-mentioned article. I found the subject still further elucidated by the remarks of Dr. F. H. Hamilton, as presented in the Report of the N. Y. Pathological Society, in No. 183, of August 1, 1873. The case appearing in every way suitable for a trial of this mode of cure, and permanent relief being urgently desired by the patient, who was willing to submit to any treatment in order to be relieved from the constant pain and lameness, I decided on operating after Dr. Rose's plan.

Patient was anæsthetized with a mixture of equal parts of chloroform and ether. As a line of incision, I selected the space between the art. dorsalis hallucis and the m. adductor brevis, running from the tarso-metatarsal joint parallel with the axis of the metatarsal bone, about three inches long, penetrating to the bone. The joint was opened and the soft parts around the head of the metatarsal bone detached, taking care not to injure the tendons. Finding great difficulty in passing the chain-saw, as recommended by Dr. Rose, between the metatarsal bones, I made the resection with the curved end of Hey's saw, without accident to the soft tissues, which were protected by retractors. There was no hemorrhage. The wound was sponged out with a five-per-cent. solution of carbolic acid, and the skin united by the interrupted suture up to the cavity left by the removal of the bone, which was left to granulate. The dressing consisted of a small pledget of lint, saturated with carbolized glycerine over the wound, and supported with adhesive plaster.

There was no constitutional disturbance; pulse and temperature normal throughout; no pain; no suppuration, and in three weeks the wound had cicatrized, and the patient was able to walk about. He is now, six weeks after operation, returned to duty, and has full use of his foot. This latter is of handsome, classical shape, the great toe slightly shortened; the bunion has disappeared. I took a plaster cast of the foot before operation, and one on the twenty-first day, both of which will be deposited in the Army Medical Museum, in Washington.

So far Dr. Rose's "résumé," as to the practicability, advantages, and safety of the operation has proved correct, with exception of the necessity of after-treatment by submersion in warm water. My patient recovered as soon as any of those reported by him, with barely more treatment than exclusion of air, antiseptic applications, and horizontal position.

WEST POINT, N. Y.

CASE OF

PENETRATING WOUND OF THE ABDOMEN.—PROTRUSION OF INTESTINE—HEMORRHAGE, AND RECOVERY WITHOUT PERITONITIS.

By W. H. GEDDINGS, M.D.,

AIKEN, S. C.

JOHN MCKENNIE, colored, about 34 years old, fell over a wheelbarrow on 13th March, breaking a porcelain tea-cup which he had placed in the loose folds of his shirt. A fragment of the cup was driven through the abdominal parietes, inflicting a longitudinal wound near the median line, and about an inch above the umbilicus, through which a foot of small intestine protruded. Immediately after the accident he walked without assistance to the nearest drug store, nearly half a mile, supporting the protruding intestine with his hands. I saw him half an hour after the accident. He was then cold and pulseless, and was bleeding freely from the mesenteric veins, the contraction of the wound around the protruded mass preventing the free return of the venous blood to the heart, and thus causing considerable engorgement. As soon as the hemorrhage ceased, I proceeded to cleanse and replace the intestine. This was effected without difficulty, and the wound was then closed with the quill suture. In addition to two ounces of whiskey and thirty drops of laudanum administered while closing the wound, the patient was ordered to take a grain of opium every three hours throughout the night.

When I called the next morning the patient had just awakened from a refreshing sleep; expressed himself as feeling perfectly well. Skin natural, pulse strong, and 80 per minute. There was no abdominal tenderness. The opium was reduced to a grain every six hours, and no nourishment allowed except barley-water in small quantities. Within thirty-six hours after the accident the pulse came down to 60 per minute, and throughout the whole period that he was under my treatment there was no perceptible fever. My thermometer being out of order at the time, I cannot state the exact temperature, but am certain that at no time did it exceed 98½° F. The wound was dressed with the usual mixture of carbolic acid and linseed oil. The opium was discontinued on the 18th, and the next day the patient had a consistent stool. On the 27th March, fourteen days after the accident, the wound had firmly united, and the patient was discharged. I have since seen him several times and find that he has never suffered any further inconvenience. The absence of all traces of fever and of peritonitis, although the intestines were necessarily exposed for more than an hour, is the most interesting feature in the case, and so rare as to induce me to present it to the readers of the RECORD.

A CASE OF METASTASIS OF PAROTITIS TO THE BRAIN.

By WILLIAM M. KEMP, M.D.,

NEW YORK.

MARY B——, aged two and one half years, who never had any previous sickness, was seen by me at the Children's Class Northern Dispensary, suffering from parotitis. The disease had been of four days duration. Lin camphoræ was prescribed with warm bath at night as the child was feverish. Examination of throat and lungs revealed nothing. After using the liniment for twelve hours the swelling of the gland markedly diminished, but the child became more and more feverish, restless, tossing about in bed, screaming and rolling its head from side to side; it vomited several times and on the sixth day of the disease was seized with a convulsion in which it died. No post mortem examination was permitted. There was evidently a translation of the disease to the brain, probably in the form of meningitis, Dr. S. J. Radcliff, of Washington, D. C., in a recent communication to the Philadelphia *Medical Times* goes over the literature of the subject, but fails to find cases of fatal metastasis to the brain, save in the experience of Dr. Dickson, of Charlestown, who is said to have seen this fatal complication. We are unable to find a recorded case of parotitis, with death resulting from metastasis to the brain. Authors speak of its possible occurrence but none quote from actual experience.

257 W. 23D STREET, N. Y.

Progress of Medical Science.

LETZERICH ON LOCAL AND GENERAL DIPHTHERIA.—Letzerich has recently published his views on this subject, which have special interest, as he is one of the boldest defenders of the parasitic theory of diphtheria, and has contributed some very important data for the support of his views. He states his belief as follows: Local diphtheria is a contagious disease of the mucous membrane. The *contagium* consists of a fungous vegetation which goes through its development and growth in the diphtheritic exudation, and in the tissue of the mucous membrane if there is no exudation. Should these low organisms force their way into the circulation they spread and increase in the body, and work a general infection, *i.e.*, general diphtheria.

These low organisms, which he classes as bacteria, plasma spheres and micrococci, etc., induce various changes both primarily in the local foci of the disease, and secondarily in such organs as the kidneys, spleen, liver and heart. First come disturbances in the nutrition of the tissues themselves, from the occurrence of fungous emboli; these interfere with the circulation, and then an astonishing increase in the fungi takes place. With the increase of the micrococci is *pari passu* a destruction of the cellular elements, so that the cells of the kidneys, liver and spleen may disappear, as well as the contractile substance of the cardiac muscle.—*Virchow's Archiv.*, 4, 1874.

LUNG AFFECTIONS AMONG THE WORKERS IN THE ENGLISH POTTERIES.—Dr. Ballard writing to the *Practitioner* gives an interesting report of some of the diseases that prevail among the pottery workers, in two towns of Staffordshire, England. In one town 312·5 per 1,000 of the male inhabitants over 20 years of age are engaged in this industry; in the other 268·8 per 1,000. In the former town, of the women, 177 per 1,000 over 20 years of age, and in the other 109·5 per 1,000 are similarly engaged. Taking the period between the years 1861 and 1870, and comparing the mortality of these operatives, from lung diseases, with the general mortality in all England, from the same causes, he found that while the ratio of deaths between the operatives from the ages of 15 to 25, including males and females, was lower than among the general population, from the ages of 25 to 45, the proportional number of deaths was somewhat higher; noticeably so among the males, between the ages of 45 and 55, and very markedly so from the ages of 55 to 65. During the last decennium the comparative mortality of the females under 55 years had diminished, which is thought to be due to the favorable influence of recent legislation in placing restrictions upon the employment of young women under certain ages. In this industry, the operatives are constantly in an atmosphere which is filled with dust, and the great objections to it, from a sanitary point of view, are that the particles of dust, the lead glazes and lead colors are inhaled, and then, besides, the work places are hot and badly ventilated. Substantial improvements have been made in the large factories that have recently been built.—*Rundschau*, Oct., 1874.

THE RELATION BETWEEN KIDNEY AND HEART DISEASES.—Dr. Galaban, of London, has made some researches to see whether he could discover what changes in the vascular system accompanied the granular kidney, and whether similar changes are found in other forms of renal disease. The following are some of the facts he ascertained with the interpretation he makes of them. In sixty-six cases of pronounced granular diseases of the kidney, there was hypertrophy of the heart in all except ten cases, and the left ventricle was most frequently hypertrophied; he did not find that the hypertrophy was more marked in young persons. In about half the cases of tubal nephritis the heart was hypertrophied, but in complicated cases of fatty kidney there was only a single case of hypertrophy. He states, in conclusion, that hypertrophy of the left ventricle occurs chiefly with granular kidney; tubal nephritis is also often connected with hypertrophy of the heart, but the renal disease is usually then of long continuance.—*Rundschau*, Oct., 1874.

EXPERIMENTS ON AMMONÆMIA AND THE REACTION OF THE URINE.—Feltz and Ritter, of Nancy, have performed a very large number of experiments on the urine, and have arrived at some conclusions which are somewhat at variance with those usually entertained. They state that as a general thing albumen and albuminous substances produce the ammoniacal fermentation. Two experiments were performed on dogs to test the change that takes place in the urine during retention in the bladder and urethra. By a careful adjustment of mechanical pressure they succeeded in retaining the urine for over two days in the bladder and also in the urethra. They found that in the former it did not become ammoniacal, while in the latter this change soon took place. In one of these cases they found bacteria in the bladder. They also filtered some putrescent urine and suspended the filtrate in a weak solution of urea and allowed it to become ammoniacal. A catheter was then dipped in this solution or in a solution of putrid urine, and introduced into the bladder, but the ammoniacal change did not ensue for some time. If, however, blood was introduced into the urine alkalinity was immediately detected. Injections of urea and carbonate of ammonia into the veins confirmed the experiments which have frequently been made showing that urea is harmless, while carbonate of ammonia is noxious. So, too, solutions of urea mixed with the ferment solutions already mentioned were injected into the blood but without any injurious effect. When large quantities of this solution were injected there was an increase of temperature, abundant diarrhœa, followed by death, which the experimenters ascribed to septicæmia.—*Journ. de l' Anat. et de la Phys. Allg. Med. Central Ztg.*, 87, 1874.

THE UNFAVORABLE INFLUENCE OF CERTAIN HEART AFFECTIONS ON PREGNANCY.—The influence of pregnancy in causing a physiological hypertrophy of the heart, especially of the left ventricle, is well known. Bottenhuit, after alluding to this fact, reports a striking case of mitral stenosis and insufficiency combined, which ended fatally three days after delivery, at the sixth month of pregnancy. In connection with this case he quotes the opinions of Sée on the injurious influences of heart affections upon the course of pregnancy and the life of the fœtus. He thinks that aortic insufficiency generally exercises no special influence upon pregnancy; women so affected often having borne several children, and not suffering from œdema or dyspnœa. Stenosis of the mitral orifice will not influence pregnancy unfavorably unless accompanied by congestion of the lungs or œdema of the lower extremities.

In the first and second cases, therefore, marriage need not be forbidden. In mitral insufficiency the physician should strongly discountenance marriage, especially when congestion or stasis already exists in the lungs. Under such circumstances pregnancy is a very dangerous condition to the mother, because it is likely she will have fresh attacks of endocarditis. The life of the fœtus may also be sacrificed through the faulty character of the maternal blood, for it will be incompletely arterialized, owing to the cardiac difficulty.—*Allg. Med. Central Ztg.*, 78, 1874.

Subcutaneous Injection of Ergotin in Fibromatous and Myomatous Tumors of the Uterus.—Hildebrandt, in an article on this subject, quotes the experiences of Scanzoni, Burow, Hennig, and Keating with his own, which has also been extensive. He concludes that we have the most favorable conditions for the absorption of a fibroma or myoma of the uterus under the ergotin treatment, (1) when the growth is firm and elastic, (2) when its seat is submucous, (3) when the uterine walls are healthy, contractile, not thinned by overdistension, not rendered rigid by exudations, and when no inflammatory processes are going on in the neighborhood. He finds that the solution of ergotin is most efficient and least likely to set up inflammatory action when it is prepared according to Wernich's directions; he adds a few drops of glycerine to keep it from moulding.—*Allg. Med. Central. Ztg.*, 83, 1874.

Treatment of Cystic Tumors of the Thyroid Gland.—At a recent clinic at the Hôtel Dieu, at Paris, M. le Dentu presented a case of cystic tumor of the thyroid gland, on which he proposed to operate, but before doing so he gave a very good description of the malady, and pointed out the dangers attending it, whether operated on or not. In referring to the treatment, operative measures, he said, offered the only chance of cure, as medication had been of no avail in stopping the progress of the disease. Punctures with a bistoury, or even with a trochar, he condemned as being dangerous, and even small, repeated punctures are not free from danger, as suppuration may take place, or the blood putrefy, and thus endanger pyæmia or septicæmia, which almost always ends in death. The same objections apply to setons or drainage tubes. Incising the cyst, and then filling it with charpie, as practised by Celsus, is also a dangerous proceeding, as it may be followed by hemorrhage or unhealthy suppuration. Excision, even partially, ought not to be thought of, as being a vascular organ the operation may end in fatal hemorrhage or phlebitis. Removal of the tumor by caustics will not expose the patient to such danger, and among these he preferred the chloride of zinc, as used by Maisonneuve in the form of darts. Injecting the tumor with irritating substances was the least objectionable form of practice. He did not approve of injections of wine, and gave the preference to the tincture of iodine, in the proportion of one part to three parts of water, as for hydrocele, though in some cases it may be necessary to use it pure, as he had seen it done by Nélaton. This surgeon sometimes added iodide of potassium to iodine; sometimes to saturation, for injecting tumors of this sort.—*Irish Hospital Gaz.*, Oct. 15.

The Physiological Action of Apomorphin.—In a paper on this subject, read at a late meeting of the Paris Académie des Sciences, by M. David, the author related the results of a long series of experiments relative to the physiological effects of the chlorhydrate of apomorphin. The preparation used by him in his experiments was obtained from the chemist Duvernoy, of Stuttgart, and was administered in the form of the subcutaneous injection. Though this solution in water changed color, its properties were unaltered, and remained in a perfect condition for some weeks. This preparation brought on vomiting when administered in the following doses: In a dog the vomiting came on five to six minutes after the injection of two milligrammes of the apomorphin, and was preceded by a very short period of nausea. The animal showed no symptom of disturbance. The dose necessary to produce vomiting in cats was much larger, and appeared to vary in the case of different animals. Thus, in one cat vomiting was brought on after the injection of two milligrammes (.03 of a grain), while another required a dose of thirty-three milligrammes (half a grain) to produce the same result. Pigeons required a minimum dose of four milligrammes (.06 of a grain) before they were sick. Experiments made on three or four occasions, on subjects in Dr. Revillod's wards, produced vomiting with a dose of from three to four milligrammes. The vomiting came on in six minutes after the injection, and was only preceded by a slight feeling of uneasiness and giddiness immediately before vomiting. The sickness itself came on suddenly, and recurred three or four times; the patients soon recovering from its effects. Chlorhydrate of apomorphin produces in certain animals, such as cats, pigeons, rabbits, rats, and guinea-pigs, a special excitement which, M. David thinks, may be attributed to a specific action of the apomorphin on the nervous centres of the animal.

Eczema of the Breast Complicated with Scabies.—Hardy, in an article in *L'Union Méd.*, for September, 1874, considers the rule a general one, that eczema of the breast only occurs under three distinct conditions: (1) During pregnancy; (2) during lactation, or (3) in the course of scabies. In cases, therefore, where a woman has this affection, who is neither pregnant nor nursing, Hardy always suspects scabies, and in the large majority of cases the suspicion has proved to be well grounded. The eczema may remain for a long time after all the mites have disappeared, and he had seen a case where this condition existed after the lapse of eight months. It may also be the result of eczematous eruptions on other portions of the body; as on the face, for example. In these cases he recommends the seemingly remarkable plan of curing the eczema first and the scabies afterwards, because the remedies by which the latter disease is relieved, have the unpleasant effect of irritating the eczematous parts, and thus prolong the period of healing.—*Ugeskrift fur Laeger.* October, 1874.

Carbolic Acid in the Treatment of Tape-worm.—Dr. Bell relates the following case, which is substantially as follows: A patient came to him to be relieved of a tape-worm. Kousso and male-fern root had been tried in vain. A single dose of turpentine was given, but it only resulted in producing a severe irritation of the stomach. Fluid extract of male-fern was next tried for several months, but with no better success. Finally, a purgative was ordered, and then carbolic acid, freely diluted with water, was given four times a day. Two days after this latter treatment was commenced several links of the tape-worm were expelled. The form of the remedy was then changed to pills, and about two grains of the acid were given every hour. Long fragments soon came away, and on the third day the head and four feet of the worm were discharged.—*Boll. d. Sci. Med.*, Oct., 1874.

Treatment of Hooping-cough.—Wilde claims that he can cure every case of hooping-cough within eight days by the following treatment: The patient is not to leave the room, and at every access of coughing is to hold before his mouth a small piece of cloth, folded several times, and wet with a teaspoonful of the following solution: ether, 60 parts; chloroform, 30 parts; turpentine, 10 parts.—*Deutsches Archiv. f. Klin. Med.*, *Allg. Wien Med. Ztg.*, 45, 1874.

Ergotin in Croupous Pneumonia.—Dr. Wycisk, acting on the principle that this drug contracts the vessels and so prevents exudation from them, has treated six cases of croupous pneumonia in this way, and gives the following report: In one such case, marked by an excessive highly albuminous expectoration, it ceased entirely two hours after the administration of the drug in powders of nine grains each every quarter of an hour. The abundant râles in both lungs soon diminished, so that there was only a slight crepitation at the original focus of the disease. These good effects lasted for two days. Two relapses occurred, however, but the same good effect was again obtained by the administration of the ergot. After the second relapse, ten drop doses of the tincture of ergot were given four times daily, until convalescence was fully established. In the five other cases the ergot was used early, and none ended fatally, none became chronic, and none left appreciable deposits behind them; in all of them the exudation was decidedly checked by the ergot. It is, however, held to be a dangerous remedy when the lungs are considerably infiltrated, where there is emphysema, where the cerebral arteries are weak, and where the patients are feeble or decrepid—*Allg. Med. Central Ztg.*, 88, 1874.

The Local Application of Bromine in the Treatment of Carcinoma of the Cervix.—Henneberg has found that the alcoholic solution of bromine when used in the proportion of one to five, is a useful application in cancer of the neck, both in the treatment of the open wounds produced by the exfoliation of the growth, and also when injected into the substance of the diseased tissues. This is essentially the plan of Schroeder. Under the guidance of Steck, the author performed some experiments to decide what the action of this solution actually was upon growths that had been removed. He obtained portions of a typical case of schirrhus and placed them in the bromine solution for forty-eight hours. They were then removed, and on examination seemed to consist merely of traces of connective-tissue with spindle cells. In another case the cancerous masses were observed to almost wholly disappear under the action of the solution—*Allg. Wien. Med. Ztg.*, October, 1874.

Suevern's Disinfectant.—The component parts of this solution are lime, chloride of magnesium, coal-tar and water. Hausmann's experiments have shown that lime, of itself, is able to clarify the turbid contents of sewers, while it retards the development of infusoria and fungi until the tenth day. The strong ammoniacal smell which follows its use may be overcome by adding one part of the chloride of magnesium to ten parts of the lime. The development of the low microscopic organisms are retarded for a much longer time by the further addition of tar.—*Geigel's Offentl. Gesundheitspflege.*

The Contents of Seminal Cysts.—Cazeneuve and Duremberg have recently examined three seminal cysts and report that the spermatozoa which were found in the fluid after filtration exhibit active movements for more than twelve hours after removal from the cysts. The fluid had a weak alkaline reaction, and contained a considerable quantity of common salt, only slight traces of which are present in the normal fluid of the seminal vesicles. On the other hand, the phosphates were wholly wanting, while they are commonly present under the form of the phosphate of magnesia.—*Allg. Wien Med. Ztg.*, 45, 1874.

The Losses in the French and German Armies During the Franco-German War.—It is stated on the authority of Dr. Chenu, Inspector-General of the French Army, that the French losses in the late war in killed, missing, and from wounds and disease, reached a total of 138,871. The number of wounded was 142,000; the number of those who were incapacitated on the march was 1,421; the missing amounted to 11,914. There were 2,881 officers among the dead, and 96 among the missing. Chenu observes that the German loss was only 44,000 killed, and 127,000 wounded, and ascribes the great disparity in the two armies to the deficiencies in the French field hospitals, adding that in this war, as well as in the Crimean and Italian campaigns, a much larger number of the military died of disease in hospitals than perished outright on the field of battle or died subsequently of their wounds.

This statement, however, is denied by Lietermeister so far as the last war is concerned, for he says "that the number of deaths from disease were far fewer than the number of deaths from external violence," and he ascribes this unprecedented fact to the advances which the science of public hygiene have made in our time.—*Allg. Med. Central. Ztg.* 93, 1874.

Surgical Assistance at Home.—A most distinguished and competent body of medical men in Paris —those attached to the *bureaux de bienfaisance* of the city—has taken up and is now engaged in discussing the question of the high mortality in the surgical and lying-in wards of general hospitals, and the possibility of establishing a system of surgical assistance at home, which would diminish overcrowding and loss of life through infection in hospitals. . . . There is a general feeling amongst medical men that surgical operations, especially the major ones, are altogether impracticable in the houses of the poor, and that all cases calling for surgical interference must be sent to the hospitals, so that, while the plan of relieving medical cases has succeeded very well, scarcely any surgical assistance is given at home. It is against this view that the medical men of the *bureaux de bienfaisance* are contending. At a meeting of the association recently held, the plan received the approval of Drs. Boinet, Passant, Dusseris, and Berrier. M. Dusseris gave a long list of important operations which had been successfully performed at the homes of the poor.—*The Correspondence of The Lancet.*

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE ARMY MEDICAL STAFF BILL.

The question of increasing the rank of the medical officers of the army again becomes of interest in connection with the bill recently presented to Congress by the Committee of the American Medical Association. In its general spirit it does not differ from a bill presented for a similar purpose and by a similar committee last year. There are but few points of issue in the case; in fact, the efforts which are now being made to secure the passage of the bill are founded mainly upon the conviction that particular injustice has been done to the medical staff by the passage of the act of June 23, 1874. The profession meekly asked for bread, but in its stead received a stone.

Instead of rewarding the old officers by increase of rank and pay, instead of encouraging the younger officers by reasonable chances for promotion, the act in question actually reduced the number in the medical staff, thereby placing an extra barrier to advancement for those who still remained in service. For instance, by that act the number of assistant medical purveyors was reduced from four to two, and the number of surgeons from sixty to fifty. At the time the law was passed, there were fifty-three surgeons actually in service. In order, however, to be relieved of the responsibility of mustering the extra number of surgeons out of service, the legislators very magnanimously allowed them to remain. This was no doubt a great effort on their part, and showed a consideration for the services rendered by these surgeons which it is to be hoped the profession will not be slow to appreciate. There was so much generosity in the whole proceeding, that so far from being commonplace, it rises to the level of the affecting. So far, so good; it was really more than the poor but worthy surgeons had, under the circumstances, a right to expect. In order, however, that this show of kindness to the surgeons should not prove "prejudicial to the service," that the provisions for promotion should not be misconstrued or misinterpreted by greedy aspirants at the other end of the line, it was to be specially understood that until the fifty-three surgeons should be reduced by death or resignation to fifty, no one below the rank of major should hope to rise. And this is the way that our last Congress answered the earnest, respectful, and reasonable appeal of the whole profession of the country!

An extra hindrance to the promotion of the assistant surgeons, is the fact that their number, as fixed by law, is three times greater than that of the surgeons. The army medical staff is not only at a stand-still as regards any increase of rank or pay; but, worse than this, is actually degraded in comparison with every other department in the army. These are facts which the profession must take into account in its coming struggle for justice to its representatives in the army.

The following is the Bill now being urged in Congress; and for the better appreciation of all its provisions, we give it in full:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:* That hereafter all the officers of the medical corps of the army now known by law as surgeons and assistant surgeons shall be designated surgeons, and that they shall have rank and promotion in accordance with length of service as follows, viz.:

"Surgeons of less than five years' service shall have the rank, pay and emoluments of first lieutenants of cavalry; surgeons of more than five and less than thirteen years' service, the rank, pay and emoluments of captains of cavalry; surgeons of more than thirteen and less than twenty-three years' service, the rank, pay and emoluments of majors; surgeons of more than twenty-three and less than thirty years' service, the rank, pay and emoluments of lieutenant-colonels, and surgeons of thirty years' service and upwards, the rank, pay and emoluments of colonels; *Provided*, That nothing in this act shall be construed to increase the total number of medical officers now authorized by law.

"Section 2. That nothing in this act shall be construed to permit the appointment of any person in the medical department until he shall have passed the examination now required by law, and that the second examination now required of all medical officers before promotion to the rank of surgeon shall hereafter be required of all medical officers before promotion to the rank of major.

"Section 3. That all laws and parts of laws inconsistent with the provisions of this act be and the same are hereby repealed."

It will be seen that the intention is to abolish the office of assistant surgeon in the army. This is entirely in accordance with a proper understanding of the respective duties of surgeon and assistant surgeon. Practically, there is no difference whatever. We have seen this during our late war, and see it in the every-day routine of office or out-post duty. Frequently, in the care of a post, the assistant surgeon replaces the surgeon, and *vice versâ*. Indeed, not to make the comparison invidious, the majority of responsibilities and the greater part of the really scientific labor has been performed by the assistant surgeons. As striking examples of the truth of this assertion, we have but to refer to the valuable labors of Woodward in the Army Medical Museum; Otis, in the medical and Surgical History of the War; Billings, in the library of the Surgeon-General's office; and Harvey Brown in his Reports on Quarantine. In the management of our general hospitals, the assistant surgeons performed all the necessary duties to the entire satisfaction of their superior officers, and no difference was made except in the matter of rank and pay. The request of the committee is not only modest and reasonable, but it is eminently just to a large number of very capable, earnest, and trustworthy young men.

The proposition that these gentlemen shall have rank and promotion in accordance with length of service, is the only one which can be entertained by the profession as offering the best opportunity of fixing a basis for the reward of true merit. Such a plan would not only stimulate those in the corps to fulfil all the conditions required to induce them to remain, but would be very likely to tempt some of the best of our freshly graduated men to enter the corps.

When we prospect the results, if the bill should become a law, we are surprised at the amount of good it would effect to the corps and to the profession at large in comparison with the small amount of expense to the government. By the provisions of the act, but ten surgeons would be promoted to the grade of colonel, half of which number would probably resign; but fifteen surgeons would be promoted to the grade of lieutenant-colonel; and but seventeen of the present assistant surgeons with the rank of captain would be promoted to the grade of major, making only fifty-four majors in all. Even allowing for the retirement of none of the older members of the corps, the whole number of those ranking as major and upwards would only exceed by three the number of medical officers of corresponding rank in the navy. We have thus far given in outline the merits of the question, in order to prepare the way for fuller discussion in future numbers.

SCHOOL HYGIENE.

It is only in keeping with the previous stupid conceit of the School Board that no heed has been taken to the suggestions of the press in regard to the necessary reform in school hygiene. Medical men of high authority over the land are of one opinion as regards the necessity for fresh air, good light, plenty of room, perfect drainage, and protection against contagious diseases in our class-rooms, and yet a School Board, which should be the representative one of the country, maintains a defiantly dignified indifference. There is hardly a grammar-school in the city which, on inspection, cannot be shown to be in a very unsanitary condition—a condition which cannot be improved by suitable sanitary regulation. The Commissioners dare not claim to be ignorant of this state of affairs. Instead of reforming the abuses, they go on crowding the school-rooms with a seeming determination to prove to sanitarians how badly our poor school children can be treated, to what an extent their hygienic requirements can be curtailed and life be preserved. By and by the community will be thoroughly waked up to the necessity of calling these functionaries to an account, and then some change for the better may take place. We believe that we are approaching this crisis, that the time is not far distant when the public, in the interests of the rising generation, will demand that the medical profession be represented in the board, and that sanitary inspection be re-established.

VIVISECTION IN ENGLAND.

At the meeting of the British Medical Association, held at Norwich, England, the agents of the Royal Society for the Protection of Animals, with more zeal than discretion, objected to some vivisection experiments. The experimenter was Dr. Magnan, a French physiologist, who wished to show the difference in the effects of alcohol and absinthe in high doses when injected into the veins of dogs. Permission to perform the experiment was denied him by the committee; but not respecting the squeamish sentimentality of that body, he concluded to carry out his demonstrations before a select audience. The dog in whose veins alcohol was injected presented all the symptoms of intoxication, but recovered; the one who was subjected to the injection of absinthe was soon seized with epileptic convulsions, and died.

We do not wish to say that these experiments proved a great deal, but desire to refer more particularly to the principle which the Humane Society afterwards attempted to establish. That Association, in the line of its presumed duty, wished to test the legality of this experiment, and brought the question into an English Court. After the hearing of testimony on both sides the complaint was very summarily dismissed, on the ground that legitimate scientific experimentation did not come under the liberal interpretation of the law. We commend this case to the serious consideration of our own Society for the Prevention of Cruelty to Animals, in the hope that it may modify their enthusiasm during their prospective crusade against the "cruel doctors" in the present State Legislature.

Eastern Dispensary.—The annual meeting of this institution was held on Monday evening, the 4th inst. The following facts were reported: Yearly receipts, $4,350.50; expenses, $4,041.90; number of patients treated, 22,676; number of patients vaccinated, 3,144; prescriptions dispensed, 31,712; patients treated at dwellings, 2,623; patients treated at dispensary, 20,053; sent to hospital, 677; died, 105. The following trustees were elected for the year: Robert R. Crosby, William Dennistoun, John W. C. Leveridge, Jared Macy, Josiah Macy, Jr., Russell Raymond, Samuel Raynor, Edward C. Sampson, William R. Thurston, Jr., Samuel T. Valentine, Isaac F. Wood, John T. Willets, John H. Waydell, Aug. W. Weismann, Julius Frankel, M D., Noble Heath, Jr., J. C. Roderiques, Edmund A. Hurry.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 9, 1874.

GENERAL MILIARY TUBERCULOSIS AND ENDOMETRITIS.

DR. KNAPP, PRESIDENT, in the Chair.

DR. MARY PUTNAM-JACOBI presented specimens removed from the body of a woman, aged 31 years, who died at the Woman's Infirmary. In the month of March last the patient had a normal confinement; but the child, which was her fourth, had died shortly after. From that time the mother's health failed gradually and steadily. In September she had a miscarriage, after which she failed still more rapidly. The first definite symptoms that were ascertained, dated from a week before the time Mrs. Jacobi saw her. At that time the husband stated that she had a slight twitching, with partial loss of consciousness. These attacks occurred several times during the evening of that day, and at irregular intervals for a few successive days. After these attacks she became partially stupid, but the husband said she had no fever. When Dr. Putnam-Jacobi saw her she was lying in a semi-comatose condition, could be aroused, and would answer some questions. Made no complaint of pain, but pressure upon the right iliac region caused her uneasiness. Her general sensibility was somewhat diminished, but was by no means gone. There was no paralysis anywhere, no change in the iris, and she could protrude the tongue when fairly roused. With the partial loss of consciousness and sensibility there was some fever. The temperature was said to have been 103° F., but towards the last it fell to 99° F. Upon percussion the spleen was normal; the liver gave a small area of dulness anteriorly, in consequence of being crowded upwards by tympanites. There was nothing abnormal in the heart or lungs. Chronic metritis dated from her miscarriage in September; but no examination was considered necessary. The diminution in consciousness gradually increased, and deepened into complete coma. The urine was carefully examined, but there was neither albumen, casts, nor blood. Under the circumstance a diagnosis of encephalitis was made. Without presenting any new symptoms, the patient died in the course of a week afterwards.

At the *autopsy* the evidences of encephalitis were plainly marked, in the shape of adhesion of the membranes to the cerebral hemispheres along the superior longitudinal sinus. In other places, instead of this complete adhesion, there were little masses that were evidently tuberculous. Some of these existed on the left side of the brain, and also in the pia mater over the base of the brain. There was also quite a large amount of effusion in the ventricles. The surface of the brain was injected, but there was no suppuration anywhere. Besides these lesions there was an extensive deposit of miliary tubercles, occupying nearly every organ of the body. A great many of these tubercles occupied the lungs and spleen; very few were in the liver; none in the kidneys, while they were scattered in greatest profusion over the peritoneum, and were most abundant in the peritoneal fold of the uterus. The Fallopian tubes were distended with a cheesy mass consisting of small lymphoid cells. The cavity of the uterus was in a state of complete fungous degeneration.

The case was of especial interest from three points of view. 1. General miliary tuberculosis developing in connection with endometritis, and evidently starting from the cheesy degeneration in the Fallopian tubes as a focus. (The lymphatic glands of the abdomen, unfortunately, were not examined.) No tubercles were discovered in the cavity of the uterus on cursory examination. 2. The existence of subinvolution without any increase in muscular fibre. So far as examined, the hypertrophied tissue consisted of conjunctive elements, with numerous rounded and nucleated cells, some flat, and a good deal of cylindrical epithelium. Immediately under these granulations the fibres of the uterus were very distinctly seen, separated by an immense quantity of lymphoid cells. This condition extended half-way through the thickness of the uterine wall. 3. The question of diagnosis of general tuberculosis.

SUPPURATIVE INFLAMMATION OF THE INTERIOR PARTS OF THE EYE, CAUSED BY A GUN-CAP.

DR. H. KNAPP presented an eyeball and made the following remarks:—Last Friday, between 9 and 10 o'clock in the evening, I was called to examine a lady's eye, which sixty hours previously had been struck by a gun-cap sprung from a toy-pistol her son had fired from a distance of about five feet. At the moment she felt sharp pain, and tears and blood ran from her eye; but for two days she noticed no particular inconvenience from that eye, and could see well with it. Forty-eight hours after the accident the eye commenced to become painful and weak. When I saw it, the pupil was narrow, the interior could be illuminated with the ophthalmoscope, but the details of the fundus were not recognizable. She counted fingers at a distance of four feet. The lower part of her visual field was slightly contracted. There was a small penetrating wound in the upper margins of the cornea and iris, through which, I had no doubt, the gun-cap must have entered. The anterior chamber was complete. Pressure upon the upper part of the sclerotic was painful, not on other parts. When firing, the boy had held the pistol down. From these symptoms I concluded that the gun-cap was situated in the upper part of the retina. As I could not see it, I had atropine instilled into the eye; the pupil dilated only little during an hour. I ordered six leeches to the temple, and the instillation of atropine every twenty minutes during the night. The next morning the pupil was larger, but fundus less red when looked at with the ophthalmoscope. Dr. T. R. Pooley, who met with me in consultation, thought there was a faint chance of extracting the foreign body. On the request of the family, we delayed the operation until 1 P. M., to have the advantage of consulting with Dr. H. B. Sands and Dr. Schirmer. At 1 P.M. the inflammation had so much advanced that the fundus could no longer be illuminated; there was chemosis, and the patient saw only the movements of the hand. Under these conditions we all thought that only the removal of the globe without delay was left. It was done while the patient was etherized. No unpleasant symptom occurred, and the wound healed *prima intentione* as usual.

I opened the eyeball two hours after I had extirpated it. It showed the finest specimen of recent suppurative inflammation of the inner structures of the eye that I have ever seen. The vitreous was streaked with pus; in the posterior half of the globe there was marked congestion. The retina was transparent, but its vessels were engorged. On the posterior face of the iris, corresponding to the wound, was a small abscess. The lens was transparent and uninjured; the ciliary body showed no notable lesion. A bright, yellow, thin piece of metal, about 1½ lines in length and 1 line in breadth, lay in the retina, above 2‴ inward from the horizontal meridian, and 1½‴ behind the ora serrata. The retina was everywhere in its normal position.

From this condition I may, without appearing too sanguine, draw the conclusion that the piece of guncap could have been extracted and the eye saved if come under observation before the inflammation had darkened the interior, that is, during the first forty-eight hours after the accident. Under the guidance of the ophthalmoscope I would have made a meridional opening through the coats of the eye, in the immediate vicinity of the foreign body, and endeavored to extract the piece of metal by means of a blunt, curved, and grooved hook, such as I have devised for that purpose. In a few operations of this kind I have been successful.

WHITE SARCOMA OF THE CILIARY BODY.

Dr. Knapp exhibited another eyeball which he had removed that day from a man of about forty-four years of age. The patient had formerly been under the care of Dr. D. R. Gebser, at the N. Y. Ophthalmic and Aural Institute. When he presented himself for the first time, the eye had the appearance of "serous irido-choroiditis." The fundus was visible, the visual field complete, the vision impaired. This inflammation soon assumed a graver character, pus appeared in the anterior chamber, the virtreous became dark, panophthalmitis set in, the sclerotic burst, and pus escaped. There was a remission of the symptoms for a few months, but recently, the eye becoming more troublesome again, the patient consulted Dr. K., who advised, and a week later performed, enucleation.

There was pus, and dark puriform fluid, probably the result of hemorrhage, in the posterior part of the globe, whereas the anterior portion was occupied by a soft, white sarcoma springing from the ciliary body and covering completely the posterior surface of the lens. This growth, in all probability, was the original disease, which, entering into the second—"glaucomatous"—stage, produced the symptoms of serous irido-choroiditis advancing to purulent irido-choroiditis, with perforation and temporary shrinking of the globe.

This observation demonstrates how judicious it is to seek for a complication—a primary disease—in all cases of purulent irido-choroiditis that are neither of a traumatic nor metastatic—pyæmic—nature.

PERFORATION OF APPENDIX VERMIFORMIS, PERITONITIS AND DEATH.

Dr. Briddon presented a specimen of the above, with the following history:

I did not see this case during life, and am indebted to the attending physician, Dr. Hadden, for particulars of the symptoms which presented themselves. The patient was a young lady, fifteen years and ten months old, menstruating. November 25th she came home complaining of abdominal pain, and sensations of chilliness, and disposition to vomit. Dr. H. saw her on the morning of the 26th. She was then vomiting, suffering intense pain in the lower part of abdomen—in fact, the ordinary symptoms of peritonitis. Temperature was not noted; pulse was seventy-four. After the day on which her physician visited her there was no more gastric disturbance; pulse steadily rose in frequency, and on the fourth day was one hundred and thirty and forty. Moderate tympanites was present; the pain was diffused over the whole abdominal surface. On the 30th Prof. Budd saw the patient in consultation. Probabilities of hæmatocele and perforation were discussed, but the tympanic condition masked the local mischief. There was no doubt as to the existence of universal peritonitis, but the precise nature of the cause was undetermined, or rather the differential diagnosis between the two suspected lesions was not made.

The symptoms gradually increased, and she died on the 3d day of December, eight days from the first manifestation of illness.

Dec. 4th, 10 P.M.—Thirty-seven hours after death, body frozen. Abdomen moderately distended, and resonant on percussion; cavity free from fluid effusion; omentum covering all the hollow viscera, nowhere adherent to abdominal walls, save at a point situate in the right iliac fossa. It was, however, everywhere adherent to the distended small intestines; adhesions were evidently recent, and easily broken down; the exudation was not in excess, being only sufficient to agglutinate opposing serous surfaces. In the right iliac fossa the exudation was of a firmer character, but there was no fluid extravasation, either purulent or feculent; colon was collapsed, small intestines inflated, and highly congested near their termination in the cæcum. The latter organ and processus vermiformis were hid from view by the adherent omentum. On carefully separating these parts the processus was found of a dark violet hue; its apex was destroyed by gangrene, and the margin of the truncated extremity was fringed with the flocculent débris of tissue. Half an inch from the extremity was another perforation, about three lines in diameter; on the proximal side of this latter perforation was a concretion resembling a date-stone in color and conformation, but of much smaller dimensions; it measured three-eighths by three-sixteenths of an inch in its diameters.

The corpora fimbriata were in a highly hyperæmic condition—swollen, tumid, and of a dark maroon color; there was a perforation on the surface of one ovary, leading into the cavity of an ovisac, filled with a dark clot.

Remarks.—I have to regret my inability to present the foreign body that occasioned all this mischief; but it was unfortunately lost by the gentleman who took charge of it. It was my intention to make a section to determine its nature. I am not prepared to say what it really was. It was our general impression that it was a seed. I do not think it was an enterolith; but of course its nature must remain uncertain. I was surprised at the very small amount of effusion; fluid there was none; the serous surfaces being simply sticky when separated from each other. Even the amount of exudation in the immediate neighborhood of the lesion was simply sufficient to mat the parts together. There was nothing that could have been detected by manipulation during life.

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Madame Letitia Rattazzi, one of the members of the Bonaparte family, has for some months been visiting the principal towns of Europe, to study the ways and means of establishing a hospital which shall be especially devoted to the treatment of cancer. As is well known, several members of the family have succumbed to this disease. The first deposit will be 150,000 francs, to which will be added a biennial prize of 5,000 francs for the best work on the subject, as well as a sum of 20,000 francs for the one who shall describe a true cure for cancer.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 17, 1874.

Dr. Austin Flint, President, in the Chair.

Prior to the reading of the paper for the evening, Dr. Gurdon Buck presented a patient upon whom he had performed the operation of

EXSECTION OF THE HEAD OF THE HUMERUS.

The chief particulars of the case were as follows:—Eighteen months ago the man stumbled over a dog, and fell with great force upon his right shoulder. Soon after, he began to feel some pricking pains about the joint, and motion was somewhat impaired. Rest gave partial relief. Some months after, the operation of *brisement force* was performed upon the shoulder in St. George's Hospital, London, and for a time the man thought he was benefited by it. In April last an opening formed and discharged matter, and continued to discharge up to the time of the operation. The probe did not readily encounter dead bone; but the whole history of the case pointed to a diseased condition of the bone; and the lack of benefit by treatment indicated that the only resource was to excise the head of the humerus.

An instrument was exhibited which was employed for carrying the chain-saw around the bone. It is an apparatus similar to Bellocque's sound, traversed by a watch-spring, which has an eye for the insertion of a ligature, to which the chain-saw can be attached. The mode of dressing was worthy of notice. The wound was first lightly stuffed with lint wet in a carbolized solution, after which it was covered with sheet-lint wet in collodion, which formed for the wound an artificial scab. Such an appliance will remain for eight or ten days, but very little swelling will take place, and it saves the disturbance of a daily dressing. The process of suppuration seems to be retarded under this dressing, although the process of granulation will go on.

Raising the arm from the body was the chief motion now impaired, but that was improving. The patient thinks he can lift as much with this arm as with the other.

Dr. Purple took the chair, and Dr. Flint proceeded to the reading of the following paper for the evening:

"UPON THE RESEARCHES OF CURRY, AND THE RECENT VIEWS WITH REGARD TO THE REMEDIAL USE OF WATER."

The researches of Curry were made at the close of the last and the beginning of the present century.

It appeared, from the reading of the paper, that Curry resorted to the use of water extensively in the treatment of a great variety of diseases. Not only were his observations made with regard to the effect of cold, but also of warm water. The results of his experience were extensively quoted, and the conclusion was easily drawn, that the water-treatment of to-day is essentially a revival of a practice adopted three-fourths of a century ago. It was an interesting fact also that Curry appreciated and clearly set forth the importance of the thermometer, and indeed the present axillary and self-registering thermometer were anticipated by him. The quotations from Curry, although so old, sounded like the fresh observations of a master-mind upon this subject, so fully were they in keeping with the most recent views concerning the value of this remedial agent.

THE COLD PACK.

Prof. Flint's method of using the cold pack is as follows:

Wrap the body in a sheet wet in cold water, and then sprinkle with a watering-pot, and continue the pack from ten minutes to half an hour, according to the temperature and condition of the pulse. Used in this manner he is of the opinion that we obtain all the benefits of the *bath*.

Special reference was made to the internal use of water in the treatment of disease. The quantity to be taken in the treatment of fever should be regulated by the feelings of the patient. Air, food, and drink; these form the tripod whence emanate the laws which should govern the hygienic management of our cases of fever. The internal use of water was suggested in the treatment of renal affections. A case was related in which the urine was scanty, albuminous, and of very low specific gravity, accompanied by other symptoms of grave character, but was brought to a successful termination by water-treatment, originated and executed by Dr. Perry, formerly house-physician at Bellevue Hospital. The chief feature of the treatment was the administration of four ounces of water, or milk and water, every half hour, regularly and steadily persisted in.

Dr. Leale presented the records of several cases in which he had resorted to the use of water with good results.

Correspondence.

TREATMENT OF FRACTURE OF CLAVICLE.

To the Editor of The Medical Record.

Sir:—Fracture of the clavicle is of so frequent occurrence, and has been so annoying to the surgeon, that any evidence bearing upon its successful, and withal simple treatment, may be of service.

The form of dressing, in my opinion, superior to all others in simplicity, ease to patient and surgeon, and efficiency of results, is Professor Sayre's adhesive-plaster plan, modified and applied as follows:

Three straps are employed.

The first encircles the arm of the injured side close to the borders of the axilla, and is then carried over the lower angle of the scapula and around the body tight enough to hold the shoulder well back.

The second piece commences over the point of the sound shoulder, and is carried obliquely across the back and over the olecranon of the injured side, drawing the elbow forward and close to the side, and then extending obliquely across the chest front to the place of commencement.

The third strap commences over the pectoral muscle, and is carried snugly over the point of the shoulder of the injured side, and obliquely down the back.

This third strap can be made a material aid in antagonizing the unfavorable action of the sterno-cleido-mastoid, subclavius, pectoralis minor, and deltoid muscles, while the support the shoulder derives from its influence in fixing the scapula and otherwise, materially contributes to the comfort of the patient and the favorable result.

To prevent pain and embarrassment of the circulation in the arm by the first strap, I employ a splint extending from near the point of the shoulder well down over the biceps muscle. This splint should be solid, hollowed to fit the arm, and just wide enough to prevent the strap from compressing the arm too much laterally.

The strap around the splint and arm should be stitched together to prevent slipping, and be loose enough to leave the arm a little free posteriorly.

The straps are cut three, or three and a half inches in width, and should be stitched together if one continuous strap cannot conveniently be obtained long enough to encompass the body.

The forearm, suspended in a sling, can be raised or lowered at will, if the elbow becomes painful.

When properly applied, this plan forms a dressing for this frequent injury which will insure comfort to the patient and recovery without deformity.

CHAS. E. SLOCUM, M.D.

DEFIANCE, OHIO.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from December 19, 1874, *to January* 2, 1875.

COOPER, GEO. E., Surgeon.—Relieved from duty at Benicia Barracks, and assigned to duty at Point San José, Cal. S. O. 124, Department of California, Dec. 11, 1874.

BENTLEY, E., Assistant Surgeon.—When relieved by Surgeon Cooper, to report to the Medical Director at these Headquarters for duty. S. O. 124, c. s., Dept. of California.

PAULDING, H. O., Assistant Surgeon.—Assigned to temporary duty at Fort Snelling, Minn. S. O. 275, Dept. of Dakota, Dec. 14, 1874.

WHITE, R. H., Assistant Surgeon.—Granted leave of absence for one month. S. O. 208, Dept. of the Gulf, Dec. 16, 1874.

WINNE, C. K., Assistant Surgeon.—Assigned to duty at Sidney Barracks, Nebr. S. O. 185, Dept. of the Platte, Dec. 17, 1874.

JACKSON, D., Assistant Surgeon.—Assigned to temporary duty at these Headquarters. S. O. 199, Dept. of Texas, Dec. 21, 1874.

SEMIG, B. G., Assistant Surgeon.—Assigned to duty at Camp Halleck, Nevada. S. O. 124, c. s., Dept. of California.

SKINNER, J. O., Assistant Surgeon.—Relieved from duty at the Presidio, and to comply, without delay, with par. 3, S. O. 260, A. G. O., Nov. 30, 1874. S. O. 159, Dept. of California, Dec. 22, 1874.

ABADIE, E. H., Surgeon.—Died at St. Louis, Mo., Dec. 22, 1874.

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THE ACADEMY OF MEDICINE OF PARIS.—This important body is on the eve of undergoing radical changes, time having rendered its organization somewhat cumbrous. Founded in 1820, the Academy, up to 1835, had to bear different modifications, and is now divided into eleven sections. These comprise medicine proper, surgery, obstetrics, and allied sciences, making altogether one hundred members. A committee lately appointed has reported, by the organ of M. Chauffard, that a complete change is necessary, and propose to diminish the number of sections, give them new names, and reduce the total of the members from one hundred to sixty. The discussion will be carried on privately, and it is expected that a good deal of opposition to this scheme will be started. It is agreed on all hands that M. Chauffard's report is a masterpiece as regards diction, lucidity, reasoning, and skilful appreciation of the part which the Academy should take in the progress of science.

Medical Items and News.

THE BELLEVUE MEDICAL BOARD.—The Commissioners of Charities and Correction met December 5th, to hear arguments in regard to the reinstatement of those physicians who had been members of the old Medical Board of Bellevue Hospital and who had been removed by the preceding Commissioners of Charities and Correction. Austin Flint, Jr., M.D., appeared for the old Medical Board, and William A. Hammond, M.D.; John C. Dalton, M.D.; Henry B. Sands, M.D.; Thomas M. Markoe, M.D.; Drs. Loomis, Krackowizer, and Polk, for the present Medical Board.

Dr. Flint took the ground that those members of the old Board who had not been reappointed had served the city for a long term of years faithfully and honorably. This long term of service had not been considered, but these gentlemen had been removed without any reason, and treated outrageously. Their services demanded the consideration of the Commissioners, and they should be reinstated as members of the present Medical Board, and permitted to continue their valuable services to the city. Those who represented the present Medical Board argued, on the other hand, that no invidious distinctions had been made, but the entire old board had been dismissed. Eight medical gentlemen had been selected, representing the different medical schools and the profession at large, and they had selected the rest of the new Medical Board. While this has been a great advantage to the other schools which contribute to the support of Bellevue Hospital, it has not injured the Bellevue Medical College. More than twice as many students of medicine, it was claimed, have been drawn to the city this winter by the superior advantages offered them, and the cause of medical education has been served by the change.

The Commissioners heard the arguments and reserved their decision. Dr. Flint expected to be supported by Dr. James R. Wood, Dr. Van Buren, and others, but for some reason they were not present. The resignation of Commissioner Donnelly will postpone the decision until another Commissioner is appointed.

DIPHTHERIA.—The following report of the Sanitary Committee of the Board of Health of this City upon Diphtheria is approved and published by the Board:

Mode of Attack.—Diphtheria is caused by the inoculation of the air-passages with the diphtheritic poison, which from this point infects the whole system; the local inflammation is attended by the formation of membrane (exudation); the fever and general symptoms are the result of this local infection.

How it Spreads.—Diphtheria is therefore a contagious disease (not perhaps as marked as scarlet fever), induced by contact with persons and objects infected. It may be diffused by the exhalations of the sick, by the air surrounding them, or directly by the exudation, communicated in the act of kissing, coughing, spitting, sneezing, or by the infected articles used, as towels, napkins, handkerchiefs, etc. The poison clings with great tenacity to certain places, rooms, and houses, where it may occasion cases after the lapse of months.

Symptoms.—In ordinary attacks the poison begins to act the moment it lodges upon the tissues, but, like a vaccination, causes but slight sensible effects in from two to five days; then there is marked prostration, dryness of throat, and pricking pain in swallowing; the throat becomes red, and patches of white exudation appear, and the glands of the neck swell. In mild cases these symptoms subside on the third or fourth day from their appearances; if more severe, these symptoms may be prolonged; if unfavorable, the fever increases, the local inflammation spreads, and exhaustion rapidly follows.

Predisposing Conditions—the Person.—Diphtheria attacks by preference children between the ages of one and ten years (the greatest mortality being in the second, third, and fourth year); children of feeble constitution, and those weakened by previous sickness; and those suffering from catarrh, croup, and other forms of throat affections.

Social Relations.—All classes are liable to diphtheria where it is prevailing, but those suffer most who live on low, wet grounds; in houses with imperfect drains or surrounded by offensive matters, as privies, decaying animal and vegetable refuse; in damp rooms, as cellars; in overcrowded and unventilated apartments.

Seasons.—Diphtheria is not affected by either heat or cold, drought or rain.

Precautions—(a.) The Dwelling or Apartment.—Cleanliness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance where any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth around and in the house should be thoroughly removed; cellars and foul areas should be cleaned and disinfected; drains should be put in perfect repair; dirty walls and ceilings should be lime-washed, and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants; ceilings lime-washed, and woodwork painted; the carpets, bed-clothing, upholstered furniture, etc., exposed many days to fresh air and the sunlight (all articles which may be boiled or subjected to high degrees of heat should be thus disinfected); such rooms should be exposed to currents of fresh air for at least one week before reoccupation.

(*b.*) *When Diphtheria is Prevailing.*—No child should be allowed to kiss strange children nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well-contrived method of propagating other grave diseases than diphtheria); nor should it sleep with nor be confined to rooms occupied by, or use articles, as toys, taken in the mouth, handkerchiefs, etc., belonging to children having sore throat, croup, or catarrh. If the weather is cold the child should be warmly clad with flannels.

(*c.*) *When Diphtheria is in the House or in the Family.*—The well children should be scrupulously kept apart from the sick in dry, well-aired rooms, and every possible source of infection through the air, by personal contact with the sick, and by articles used about them or in their rooms, should be rigidly guarded. Every attack of sore throat, cough, and catarrh should be at once attended to; the feeble should have invigorating food and treatment.

(*d.*) *Sick Children.*—The sick should be rigidly isolated in well-aired (the air being entirely changed at least hourly), sunlighted rooms, the outflow of air being, as far as possible, through the external windows by depressing the upper and elevating the lower sash, or a chimney heated by a fire in an open fireplace; all discharges from the mouth and nose should be received into vessels containing disinfectants, as solutions of carbolic acid, or sulphate of zinc; or upon cloths which are immediately burned; or if not burned, thoroughly boiled, or placed under a disinfecting fluid.

By order of the Board,
Charles F. Chandler,
President.

Emmons Clarke, Secretary.

A circular nearly similar to the above in its general features has likewise been issued by the Board of Health of the City of Brooklyn.

A New Edition of the Encyclopædia Britannica is announced by the publishers, Messrs. A. & C. Black, of Edinburgh, to be edited by Mr. T. S. Baylis, Professor of Rhetoric and Metaphysics in the University of St. Andrews. The ninth edition is not to be merely an alteration and adaptation of the eighth, but a reconstruction, in which the new matter will amount to considerably more than half the whole. Among the contributors are Prof. Whitney, of Yale College; Dr. W. B. Carpenter, one of the leading writers for the past twenty years and more on Physiology; Prof. Max Müller, who will discuss the Aryan races and languages; Dr. E. B. Taylor, the author of Primitive Culture, who writes on Anthropology. Prof. Huxley contributes articles on the Animal Kingdom and Amphibia; St. George Mivart, on Apes; Alfred R. Wallace, on Acclimatization; and Dr. Letheby, on Adulteration.

The ninth edition will, like the eighth, fill twenty-one quarto volumes of 800 to 900 pages each. The type of the specimen sheets is very clear, and illustrations of varied character abound. Three volumes a year are to be issued, beginning in January, 1875, at 30 shillings each ($7.50).

A Patent Decision Affecting Dentistry.—For several years past the dockets of all the United States Circuit Courts have been crowded with suits brought by the Goodyear Dental Vulcanite Company against dentists, for infringing the Cummings patent, covering the hard rubber plates used for inserting artificial teeth. Between 2,900 and 3,000 suits have been brought against infringers of this patent.

In the hope of ending the threatened prolonged litigation, a full bench of the United States Circuit Court—three judges sitting—met in the Eastern District of Michigan, at Detroit, and arguments on both sides was heard on Nov. 5, 6, and 7 last, on a test case selected to determine the rights of the patentee. The complaint was against one George Willis. Judge Emmons, in behalf of the Court, has just rendered an opinion fully sustaining the validity of the patent. After alluding to "the exceptional feeling and excitement existing in the minds of the numerous defendants in suits brought on this patent," and discussing the questions of law involved, he suggested to the numerous other defendants having like cases pending, the uselessness of additional argument before the Circuit Courts.

Extirpation of a Fibro-cystic Tumor of the Uterus with the latter and its Appendages.—In the *Canada Medical Record* of November, Professor Trenholme, of Montreal, reports a case of a woman, aged thirty-three years, from whom he had removed, by abdominal section, a tumor which, together with its appendages, weighed sixteen pounds. On the thirty-fifth day the patient was able to walk out of the house.

In a duel recently fought near Grand Bay, Mississippi, by two residents of Mobile, Dr. Benjamin D. Lay, of Mobile, actuary of the Grangers' Life and Health Insurance Co., shot and killed Mr. A. H. Tardy, agent in a rival company.

Narcotizing Horses.—The *Gaz. Méd. de Bordeaux* says that an eminent veterinary surgeon has informed the Medical and Surgical Society of that City, that the coachmen of certain families had been for some time in the habit of administering chloral to the horses in their charge, so as to make them easier to ride or drive. It appears that the drug acted like a charm, for horses which had previously been so spirited as to give much trouble to their driver, became as quiet as lambs after a few days of this hyposthenic treatment. The change naturally attracted the attention of the owners of the animals, and they sent for the veterinary surgeon to ascertain the cause of the sudden gentleness. That functionary noticed a certain tendency to sleep in the animals; but scarcely knew to what to refer this unusual condition, when, in one of his visits, he chanced to find a bottle half full of chloral. When the coachman was questioned regarding the use he made of the drug, he confessed, after much hesitation, that, following the advice of a brother "whip," he gave the horses a dose of chloral every morning to make them go quietly, and further, that many of the fraternity in Bordeaux followed the same plan.

Syracuse University.—A citizen of Syracuse, whose name has not been made public, has presented the University in that city with $20,000. The same gentleman will also endow a professorship in the University at some future time, when his name will be announced. Since last June the University has received contributions amounting to $175,000, which brings up the endowment of the institution to $800,000.

Cremation.—A California paper suggests some readings on plates of funeral urns in the future: "Charles Pupker, 3½ lb., cremated July 9th, 1879. For wife of above, see third pickle-bottle on next shelf; little Tommy, burnt up Sept. 16th, 1881. Jane Matilda Perkins, Oct. 3d, 1883, put up by the Alden Corpse Cremating Company. None genuine without signatures."

Vivisection.—An attempt has been made in the English courts to enforce the law for the prevention of cruelty to animals against the operators of vivisections made in the interest of science. *The New York Herald*, in a recent issue, says:—"Any thoughtful person not blinded by fanatical zeal, can comprehend that the delegation of authority to prevent this cruelty, wherever made, is made always to suppress the flagrant exhibitions of brutal impulses that are horrifying to ordinary sensibilities, and that lawmakers never intended to embarrass the legitimate pursuits of science by this sort of law; least of all could they ever have intended to prevent the sacrifice of a few of the lower animals in the interests of humanity generally. But the English society has the same blind bigotry on this point that has been manifested by our own society, and takes the same morbid view of the relations of man to the brute creation. It endeavored to punish a vivisection made in the presence of a learned society, and its complaint was dismissed. If this act cannot be punished in England it cannot here, where there is far less professional philanthropy, and we hope the society will take note of the decision on the other side."

Dr. E. Warren Sawyer, a graduate of the Harvard Medical School, has obtained the position of Lecturer on Obstetrics at the Rush Medical College, Chicago, after a competitive examination with thirteen others. Each candidate was called on to deliver an extemporaneous lecture on a given subject before the Faculty and students.

A Training School for Nurses has been established at Montreal. Its foundation is due mainly to the liberality and labor of Miss Monsy, a young lady who was trained by the Countess Gasparin, in whose honor the institution has been named "The Gasparin Training School and Nurse House." The plan of management, as given by the *Canada Medical Journal*, is as follows: Each nurse binds herself to serve three years, the first six months free, and after that to receive ten dollars per month, and two suits of uniform annually, and comfortable board and lodgings at the "Home" when unemployed. Miss Monsy has contributed the property from her private purse, and also renders her services free. The expenses have been met by by private subscription, and the concern is now nearly self-supporting. It contains about 40 beds.

A Prize for an Original Essay on the use of electricity in acute diseases is offered by Dr. Geo. M. Beard, editor of the *Archives of Electrology and Neurology*. The essay must be founded entirely on the original experience of the author, and should not exceed fifteen pages of the above-mentioned journal, in which the successful paper is to be published in November next. The essays should be handed in by Sept. 1, 1875. The amount of the prize is twenty-five dollars.

The Trouble in the Paris School of Medicine.—The Medical School of Paris was partially reopened after the late disturbances, on December 1st. Two of the apparitors belonging to the school had orders to allow only fourth-year students to enter the room where M. Chauffard was to resume his interrupted course of lectures, and he commenced with an audience of thirty-nine. But after the lapse of a few minutes, the students departed one by one, until, according to the *Progrès Médical*, M. Chauffard had only three left to listen to his, doubtless, carefully prepared discourse.

The Warren Triennial Prize.—The Trustees of the Massachusetts General Hospital give notice that the next Warren Prize, amounting to somewhat less than $400, will be awarded to the author of the best essay, considered worthy of a prize, on any subject in physiology, surgery, or pathological anatomy, embodying original researches.

Each essay should be accompanied with a sealed envelope containing the author's name and address, and be sent to the Resident Physician of the Massachusetts General Hospital before February 1, 1877.

An Adjourned Meeting of the Medical Society of the County of New York will be held Tuesday evening, Jan. 12th, when Dr. George M. Beard will read a paper entitled, "The Relations of the Medical Profession to the Delusions of Spiritualism, Animal Magnetism, Mind Reading, etc. How these should be detected and exposed."

Mr. Heath's solution, referred to by Dr. Sell in our last number, has the strength of a scruple of nitrate of silver to the drachm, and is introduced through a hard rubber urethral syringe by means of a mop.

The American Journal of Obstetrics.—Our attention has been called to the fact that no mention was made of this journal when referring to the different periodicals published in this city. We are at a loss to account for this omission, and merely say that it was by the merest accident.

Dr. Henry G. Piffard, of this city, has been appointed Honorary Dermatologist to the Board of Health.

Erratum.—In Prof. Clark's article, vol. 10, No. 1, page 2, second column, 31st line from the bottom, for *central* read *cerebral*.

Original Lecture.

CARDIAC DILATATION.

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF PRACTICAL MEDICINE AND PATHOLOGY IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY.

(Phonographically reported for THE MEDICAL RECORD.)

GENTLEMEN:—To-day I will invite your attention to the subject of cardiac dilatation, which in its causation and anatomical changes is closely allied to cardiac hypertrophy, the subject of our last lecture.

By the term *cardiac* dilatation, you may understand a condition of the heart in which there is an increase in the capacity of its cavities; but the contractile power of the organ is diminished.

There are three recognized forms or stages of *cardiac dilatation.*

First:—Simple cardiac dilatation, in which the capacity of the heart cavities is increased without any marked change in the cardiac walls. Such a condition is apt to occur in connection with convalescence from any disease in which there has been great impairment of nutrition, such as typhoid fever, etc.

Second:—Hypertrophous cardiac dilatation.—In this form there is increase in the heart-cavities, accompanied by a slight increase in the thickness of the heart walls; but the contractile power of the heart is diminished. This condition may occur as the result of a degeneration of eccentric hypertrophy, or it may occur independent of any hypertrophy of the cardiac walls.

Third:—Atrophic cardiac dilatation.—In this form the capacity of the heart cavities is markedly increased, and the cardiac walls are markedly thinner than normal. Sometimes the ventricular walls diminish to not more than two or three lines in thickness, and the auricular walls may become so thinned that they will present the appearance of a simple membrane. Under these circumstances the contractile power of the heart is almost lost. Anatomically as well as clinically the significance of cardiac dilatation is in proportion to the excess of the capacity of the cavities over the thickness of the cardiac walls. A cardiac cavity may be very much increased in capacity, but so long as there is a corresponding increase in the muscular power of its walls sufficient to meet the demand of the increased work they are called upon to perform, there will be little or no disturbance to the general circulation. Eccentric hypertrophy and hypertrophous dilatation approach each other very closely, and it is often very difficult to draw the line of separation between them.

Morbid Anatomy.—One or all of the heart cavities may be the seat of dilatation. The shape of a heart when it has undergone dilatation is changed according to the cavity which is the seat of the dilatation. If the dilatation is confined to the right ventricle, the heart will be increased in breadth; while if the dilatation affects mainly or only the left ventricle, the heart will be increased in length. Ordinarily when one cavity is dilated the remaining cavities are more or less affected in the same manner.

Cardiac dilatation occurs most frequently in the auricles; next in the right ventricle; and last of all in the left ventricle. While the left ventricle is less liable than the right to become the seat of dilatation, it is more liable to become the seat of hypertrophy. When all the cavities are dilated, the entire organ is increased in size, and assumes rather an ovoid shape. When the ventricles are excessively dilated, the trabeculæ are sometimes reduced to the condition of fleshy tendinous cords. When the walls of the left ventricle are very much thinned, they collapse when the ventricle is opened. The anatomical changes which take place in the muscular tissue of the dilated cardiac walls vary with the degenerative process which precedes and attends the dilatation. When it results from pericarditis or myocarditis, there is serous infiltration and granular degeneration of the muscular fibres. When it is the result of fatty metamorphosis the muscular fibres undergo fatty degeneration, the process of which will be described under the head of fatty heart.

In hypertrophous dilatation, it is often impossible, even by microscopic examination, to determine the exact changes which the muscular fibres undergo; the abnormal state of the muscular fibres can only be determined by the other evidences of feeble heart power. You must be careful not to mistake a heart distended with blood and relaxed by putrefaction for a dilated heart. The distinctive marks of a heart softened by the putrefactive process are its extreme softness, its saturation with the coloring matter of the blood, and the evidences of decomposition in other parts of the body. Closely connected with the morbid anatomy of cardiac dilatation, is its causation.

Etiology. The causes of cardiac dilatation vary very widely. One class of causes may be included under the head of the immediate changes which take place in the muscular tissue of the walls of a heart that has undergone dilatation. I have already alluded to these. First, we have the changes in the muscular tissues which accompanies pericarditis and endocarditis; second, fatty degeneration of the muscular fibres; third, a cardiac dilatation which occurs with certain forms of protracted disease, such as typhoid fever, where the most careful microscopical examination will fail to detect any uniform change in the muscular fibre, except, perhaps, a general atrophy of all the tissues. One or all of these tissue changes may be regarded as causes of cardiac dilatation; again all the causes of cardiac hypertrophy may become the causes of dilatation in a heart which has a feeble resistant power. This group of causes may be classed under three heads:—*First: internal pressure during a cardiac diastole.* The wall of a heart may become weakened by the changes which occur in certain prolonged diseases, or it may become the seat of serous infiltration or fatty degeneration; then an abnormal pressure within its cavities during its diastole will cause the cardiac walls to yield beyond their normal limits. Such distension is certain to be followed by permanent dilatation of its cavities. Most of the valvular lesions which have recently occupied our attention may be the direct cause of such internal pressure during the cardiac diastole, after the manner I have already described in connection with the etiology of cardiac hypertrophy. Generally (as I have endeavored to show you), when the cardiac cavities become distended beyond their normal limit, and thus temporarily lose their contractile power, rapid hypertrophy of the cardiac walls is developed, which compensates, and to a certain extent overcomes the dilatation. But if the cardiac walls are enfeebled by any of the degenerative changes to which I have referred, such compensating hypertrophy does not take place, and any valvular lesion which will permit a double current of blood to flow into a cardiac cavity during its diastole, the heart walls having become enfeebled by degenerative changes, will give rise to cardiac dilatation. *Second:* when the muscular tissue of the heart is the seat of primary fatty degeneration, after a time dilatation of the cavities takes place, the normal blood pressure being sufficient to produce it. In the same manner will a heart become dilated when its walls are the seat of myocarditis. That form of cardiac dilatation which follows typhus and typhoid fever or chlorosis, usually disappears when the attenuated muscular fibres of the heart, with the rest of the muscles, regain their normal condition; but the dilatation which results from fatty degeneration of the muscular walls of the heart steadily increases. *Third:* there is still another cause of cardiac dilatation which has already been referred to in connection with the history of valvular diseases; that in degeneration of the muscular substance of the heart which is the seat of eccentric hypertrophy. The manner of its development I have already described. The dilatation does not occur in this class of cases until long after the development of the valvular diseases which give rise to the hypertrophy. Usually the hypertrophy becomes very extensive before the degenerative dilatation commences; but when it once begins, it progresses very rapidly, and the failure of heart power is attended by very distressing symptoms. The power that obstruction to the pulmonary circulation has in producing dilatation of the right ventricle has been considered in connection with valvular diseases of the heart. When these obstructions exist, eccentric hypertrophy rather than dilatation is generally developed.

Symptoms. The symptoms that attend the development of cardiac dilatation chiefly depend upon the character and seat of the dilatation. In simple cardiac dilatation, the heart walls possess normal power, but the capacity of the cavities is increased, and the amount of blood to be expelled with each cardiac pulsation is greater than normal, consequently there is labored action of the heart (often to such an extent that it may readily be mistaken for the action of a hypertrophied heart), yet the force of the heart's action does not increase, and therefore we have a feebleness of the radial pulse The rhythm of the heart's action will not be disturbed. In that form termed atrophic dilatation, you have a very different state of affairs. The heart cavities are not only dilated, but the walls of the cavities are thinner than normal,—the heart power is insufficient for the expulsion of the blood from it's cavities, and as a result, there is a labored action, a markedly feeble radial pulse, and the heart, on account of the increased amount of labor, staggers with action, the arteries are improperly filled with blood, the veins become over distended, the rhythm of the heart's action is disturbed, and the radial pulse becomes weak and intermitting. These latter are points of special importance, as affecting the question of prognosis; for, if a patient has all the symptoms of cardiac dilatation without an irregular and intermitting pulse, the prognosis is comparatively good. The same disturbance of the circulation occurs in that form of dilatation which is developed from the degeneration of eccentric hypertrophy.

The first, and perhaps the most constant symptom, which is common to all varieties of cardiac dilatation is cardiac palpitation. At times this palpitation is very severe and distressing. There is almost constantly a sense of painful palpitation in the region of the heart. Very soon after the palpitation has manifested itself, the patient will begin to suffer from dyspnœa on slight exertion; when he is quiet he suffers very little. As the irregularity of the heart's action and the palpitation increases, the patient's countenance assumes a pale, languid, anxious expression, with more or less lividity of the lips. On excitement or active physical exertion, the entire face and neck become livid; the pulse, which usually is regular, for a time becomes irregular and intermittent. In this condition patients often live some time in comparative comfort, but they are conscious, not only of a loss of physical, but of mental power, and are troubled with dyspeptic symptoms, and a sense of fulness about the epigastrium. As the disease advances, and the cardiac dilatation reaches a point at which it is always troublesome, the patient has constant dyspnœa, which becomes severe on slight exertion; cardiac palpitation is always present, and often accompanied by attacks of syncope. The countenance now assumes a still more anxious expression, the lips retain a constant lividity, and the pulse is still more irregular and intermitting. With these symptoms there will be scantiness of urine, and it will very likely contain albumen. The feet and ankles become œdematous, the œdema gradually extend upwards, until the patient is in a state of general anasarca. The respiration now becomes very difficult, so much so that the patient cannot lie down, but is obliged to sit with his head inclined forward and resting upon some firm support, and he is usually unable to utter more than a single word at a time. The extremities become cold and blue; the mind wanders, and the patient dies from general anasarca with pulmonary œdema. In nearly all cases of cardiac dilatation, when it becomes extensive, the surface of the body will have a yellow tinge, showing that the circulation through the liver is more or less disturbed.

During the latter stages of this affection, most violent paroxysms of dyspnœa will occur, and it will seem as though the patient must die in some of them, yet they rarely prove fatal; but the patient passes into a state of coma and dies unconscious. In extensive cardiac dilatation there is always danger from sudden syncope, which may prove immediately fatal. To describe to you *all* the phenomena that attend the different degrees of cardiac dilatation, modified as they are by the idiosyncrasies of the individual, as well as by the varying extent of the valvular changes which may be present, would be almost an endless task.

The phenomena already described, which are present to a certain extent in all cases, are sufficient to lead to at least a problematical diagnosis. Besides, the physical signs of this affection, if properly appreciated, are very distinctive and generally will remove all doubts in connection with a case. You must be prepared, however, to find that the symptoms which develop in different cases greatly vary; but the variation depends more upon the valvular lesions which are developed in the course of the dilatation than upon the dilatation itself.

Physical Signs.—Upon *inspection* it will be noticed that the visible area of the apex beat is increased; but it is so indistinct that it will be difficult to determine by inspection the exact point where the apex strikes the walls of the chest. This is especially the case if the chest walls are covered with much adipose tissue or are at all œdematous.

In persons with thin chest walls you will sometimes notice an undulating motion over the whole of the precordial space. The precordial region is never prominent as is sometimes seen in eccentric hypertrophy.

Upon *palpation* you will readily distinguish dilatation from hypertrophy by the feebleness of the cardiac impulse. Although it can sometimes be felt as far to the left as is the axillary line, yet there is an absence of the lifting, forcible impulse which attends cardiac hypertrophy. It is often difficult to determine the exact point of its maximum intensity, but it will be noticed that over the entire precordial space there is an undulating motion, and the apex beat will be diffused, wanting in force, and resembling a feeble step. Sometimes with this character of apex beat a purring thrill will be present. I stated to you that a purring thrill with the apex beat was almost characteristic of mitral stenosis; but you may have a purring thrill with mitral regurgitation, when the regurgitation is associated with cardiac dilatation.

Percussion gives a greatly increased area of lateral dulness. The area will be increased to the right of the right side if the heart is the seat of the dilatation, and in some cases the increase will extend an inch or more to the right of the sternum. If the left side of the heart is the seat of the dilatation, the area of dulness will be increased to the left, and may extend well into the axillary space.

The shape of the increased precordial area will be oval. This point is of importance in the differential diagnoses between cardiac dilatation and pericardial effusion. The area of the superficial cardiac dulness is not increased in the same proportion as the deep-seated, as is the case in cardiac hypertrophy. Dilated auricles are recognized by an upward increase in the area of dulness. When the jugular veins are permanently dilated and knotted, the existence of dilatation of the right auricle will not be difficult to determine.

Auscultation.—The sounds of a dilated heart are short, abrupt, and feeble. The second sound is often inaudible at the apex, and the two sounds are of very nearly equal duration. Whenever a cardiac murmur has existed prior to the development of the dilatation, as the dilatation develops the rhythm of the murmur is lost, and it becomes simply a confused murmuring sound. This condition has been denominated asystolia. It is a condition in which you are unable to determine whether the murmur is synchronous with the first or second of the heart; and pauses or intermissions occur at irregular intervals. which are of more frequent occurrence during exercise than when the patient is quiet. When the asystolic condition is present, prognosis is very unfavorable, independent of the general condition of the patient; for it shows that, in addition to the valvular lesions which may be present, cardiac dilatation has been developed to such an extent as to give rise to complete confusion of the normal heart sounds. Under such conditions the patient is liable to die at any moment. Asystolism is generally accompanied by a diffused cardiac impulse, which is peculiar, and is readily appreciated by the ear as it rests over the precordial space. The respiratory murmur is diminished in intensity over the whole of the upper portion of the left lung.

Differential Diagnosis.—The diagnosis of cardiac dilatation rests mainly on the following conditions: Feeble action, undulating impulse, indistinctness of apex beat; lateral increase in the area of percussion dulness (very nearly square in its outline); short, abrupt, and feeble heart sounds; feeble, irregular, and intermitting pulse, accompanied by the general symptoms of systemic and pulmonary obstruction and congestion.

The differential diagnosis between cardiac hypertrophy and cardiac dilatation is never very difficult. The symptoms of the two conditions differ very materially. For instance, the heart sounds are intensified in hypertrophy and feeble in dilatation. In both cases there is an increased area of apex beat; but in hypertrophy it is full, distinct, and forcible; while in dilatation it is feeble, diffused, and indistinct. An individual with cardiac hypertrophy apparently has a more than normally vigorous and forcible action of the heart, which is increased by active exercise, and has none of the feebleness of heart action which attends the person with cardiac dilatation. The fact that an individual has had cardiac hypertrophy with all its attendant symptoms, but now has a tired expression of countenance, livid lips, and daily decrease of physical vigor, accompanied, it may be, by œdema of the feet, shows that cardiac hypertrophy has become cardiac dilatation. Dilatation of the right side of the heart, in addition to the signs already detailed, is to be recognized by changes produced in the veins. The presence of distended. irregular, turgid jugular veins, tells very positively of dilatation of the right auricle; and pulsation in the jugulars, accompanied by feeble heart action and increase in the area of cardiac dulness upon the right, speaks very distinctly of dilatation of the right ventricle associated with tricuspid regurgitation. It is sometimes somewhat difficult to make a differential diagnosis between pericarditis with effusion and cardiac dilatation. In pericarditis with effusion the area of dulness is increased, and there is a feeble apex beat, and sometimes an undulating impulse, all of which are present in cardiac dilatation. The heart sounds, however, in pericarditis are more removed from the surface than they are in dilatation, and the area of percussion dulness is pyriform, while in dilatation it assumes nearly a square shape. Besides these distinguishing features, you will rarely meet with a case of pericarditis, even with effusion, when you may not hear a friction sound at some point; but in cardiac dilatation there is an entire absence of friction sound, no matter in what position the patient may be placed. In addition to these differences in the physical signs, the history of the case and the accompanying rational symptoms will be of great assistance in solving the question of differential diagnosis between either cardiac dilatation and pericarditis or cardiac hypertrophy and fluid in the pericardium. The differential diagnosis between enlargement of the heart, either from dilatation of its cavities or hypertrophy of its walls and thoracic tumors, will sometimes present itself. Both of these cardiac conditions may be developed as the result of, or in connection with, thoracic aneurisms. One very reliable differential sign is the direction of the increased area of percussion dulness in thoracic aneurisms and mediastinal tumors, for they always enlarge upward and to the right or left; while in cardiac enlargement the area of dulness is increased in a lateral direction and downward. This fact, taken in connection with the other physical and rational signs of aneurism, is generally sufficient for the differential diagnosis between these conditions.

Consolidation of lung tissue in the region of the heart may give rise to some of the signs of cardiac enlargement, but the other attending physical signs of pulmonary consolidation will enable you to distinguish between the dulness on percussion produced by the pulmonary consolidation and the increased area of dulness produced by the cardiac enlargement.

Prognosis.—The prognosis in cardiac dilatation is always bad, and the danger to life is increased in proportion to the excess of the capacity of the cavities over the thickness of their walls. The more the capacity of the cavities is increased, the greater the thinning of the cardiac walls, and the greater the danger to life. Feebleness of the general muscular system and impoverishment of the blood greatly increase the danger. If these patients have been subject to paroxysms of dyspnœa and attacks of syncope, the prognosis is especially bad, for then there is constant danger of sudden death. The dangers attending any intercurrent pulmonary disease are always great.

Whenever dropsy of any kind has been developed, prognosis is very bad. When this condition is developed, few patients, even with the best of care, live more than eighteen months; the majority die within one year. In those cases in which the pulse is regular, or only becomes irregular after violent physical exertion, the prognosis is comparatively good, for much can be done to relieve and prolong the life of such patients. When general anasarca has been developed, and the patient is no longer able to assume the recumbent posture, you will be able to give temporary relief, but it will be only temporary. This brings us to the question of treatment.

Treatment.—As regards complete recovery, the treatment of cardiac dilatation is altogether unsuccessful. It is not a curable disease. Even the good effects of palliative measures are only temporary. There are, however, two important objects to be aimed at in the management of a case of cardiac dilatation.

First, Maintenance of the general nutrition at the highest possible point, as the most certain means of preventing flaccidity of the cardiac walls; *second,* prevention, as far as possible, of all irregular or violent action of the heart. To obtain the first object, the diet must be of the most nutritious character, should be taken in small quantities, and at short intervals. An exclusive milk diet will often be found most advantageous. Stimulants must be taken only in small quantities, and with the food. When symptoms of anæmia are present, *iron* may also be administered with the food. As a rule, the daily administration of iron to a patient with dilated heart is safe.

The patient should have the greatest amount possible of fresh air, and should be kept under the very best hygienic influences. The skin should be kept active, and slightly stimulating baths may be employed for the purpose of increasing the power of the capillary circulation.

To attain the second object, this class of patients must be placed under the strictest rules with regard to exercise. They should never allow themselves to be placed in such circumstances as to render necessary sudden and violent exercise, for a single violent physical exertion may jeopardize the life of any patient with cardiac dilatation. Every such exertion carries the point of resistance in the cardiac wall a little beyond what it can ever regain. Flannel should be worn next the skin. A dry bracing air, generally, agrees best with this class of patients. As regards the remedial agents to be employed in the management of cardiac dilatation, each case must be studied by itself. All exhausting discharges must be arrested. If hyperæmia of the liver and other abdominal viscera is present, it must be relieved by the occasional administration of an aloetic or mercurial purge. Excessive purgation, however, is not admissible, but a daily movement of the bowels, without exhausting catharsis, is important. When there is loss of appetite and impaired digestion, vegetable tonics and mineral acids are indicated. Those remedial agents which have a direct effect upon the heart itself are all-important in the management of this form of cardiac disease. The most important and most serviceable of this class of remedies is digitalis. It can always be administered in full doses, or at least in sufficiently large doses to regulate the heart's action. Often, when the feet become œdematous and the patient cyanotic, this remedy has a wonderful effect, and may often entirely remove, temporarily at least, all unpleasant symptoms. When the heart's action has been regulated by the use of the remedy, it may be continued in smaller doses, and the small doses should be continued for a long time. If, after a time, the heart's action cannot be controlled by the digitalis, belladonna or opium may be combined with it. The effect of such combination is to tranquillize the excited heart; but the tranquillizing effect will be only temporary. This combination of remedies, then, should only be resorted to when the digitalis has been thoroughly tested and has failed. In the use of digitalis the same restriction should be observed which was mentioned in connection with the treatment of other cardiac diseases, namely, it should never be used indiscriminately, for the time will come, sooner or later, when the remedy will cease to have any controlling effect upon the heart, and then we are helpless. It is always desirable to postpone that period as long as possible.

Should the heart become nervously excited during the administration of the digitalis, as it often does, various antispasmodic remedies may be employed. Paroxysms of dyspnœa may be temporarily relieved by hydrocyanic acid, cannabis Indica, ether, and dry cupping along the spine. During the time when the disease is making slow progress, a great variety of measures may be indicated, and may afford temporary relief; but your chief reliance will always be upon digitalis and iron, associated with the most nutritious diet, and a careful avoidance of all excitement and undue physical exertion.

Original Communications.

DIVIDED

TENDO-ACHILLIS WITH OPEN WOUND,

SUCCESSFULLY TREATED, WITH COMPLETE UNION OF THE TWO CUT ENDS.

(A Paper read before the Northwestern, Ohio, Medical Association.)

By A. HURD, M.D.,

FINDLAY, OHIO.

Prof. Gross tells us that "Tendons, when divided subcutaneously, readily unite, through the intervention of plastic matter, without the occurrence of any considerable degree of inflammation." He also teaches that when a "tendon is divided in an open wound, the two ends rarely unite at all, owing mainly to two circumstances; the first is that the ends retract too far to enable us to bring them properly together; and the second, that the wound nearly always suppurates, an occurrence eminently inimical to adhesive action." There are three cases reported in the Medical Record, in which perfect cures resulted. One in No. 206, by Prof. Kearney: one by Dr. G. H. Mitchell, in No. 202; and one by Dr. D. A. Sheffield, in No. 209. All of these, contrary to the general rule in such injuries, seemed to have resulted in a perfect reunion of the cut ends of the tendo-achillis.

As to the general management and the difference of opinion, as to the time required to repair the injury, I will refer you to the reports made by each surgeon, and also for the particulars of the treatment and the modes of procedure in each case. I have no doubt they are all of them genuine, reliable reports of actual cases, and that the facts are truly given as to the results obtained. Such good results, I am fully aware, are very exceptionable. But I cannot see why, under proper treatment, with perfect coaptation of the divided ends, and the application of proper retentive apparatus, carefully and persistently used, we should fail in obtaining perfect cures. I believe coaptation of the cut ends can be maintained by the use of proper apparatus and dressings carefully adjusted and carefully supervised after their application.

I propose to give the facts of a case of this injury which came under my observation, which corroborates the three cases referred to, and constitutes the fourth which has recently been reported of successful treatment of the injury:—

I was called, August 9th, 1874, to see C—N—, a little German boy, aged about 8 years, who had been wounded in the heel by a sharp stone (picked up from a newly macadamised street), thrown with great force by another lad. Upon reaching the patient, I found that the parents had dressed the wound, but had sent for me on account of the hemorrhage, which they were fearful would prove dangerous. On removing the dressing I found a transverse wound, a comparatively smooth cut, about one inch and a quarter in length, situated an inch and one-half above the insertion of the tendo-achillis into the os-colcis. When the blood had been washed away, I could see the lower end of the cut tendon protruding from the wound, and the upper end by retraction separated at least one inch from the lower end.

I could readily place my finger between the ends and distinctly feel the two cut ends completely separated, constituting a complete division, in an open wound of the tendon. Here was trouble. I had been taught, the weight of authority is in that direction—that complete reparation and union could not be expected, and rarely, if ever, occurred. There were two important indications to meet. Perfect coaptation of the ends, complete immobility and rest; the same requirements necessary to successfully treat fractured bones. The hemorrhage was mostly veinous, probably from the wounding of the external Saphenous vein, and was readily asserted, which being done, and suitable appliances prepared, the patient was brought under the influence of chloroform, the wound thoroughly cleansed, care being taken to see that there were no small pieces of stone or dirt left in the wound. After which, while the leg was well flexed, the foot extended and firm pressure and extending force made by the hands of an assistant, upon the posterior muscles of the leg, I proceeded to put in three sutures of silver wire, through the integuments, the fascia, and the free ends of the tendon about one quarter of an inch from the edges of the wound, and by carefully though firmly drawing the wire, the ends of the tendon, and divided structures, were perfectly coapted. Adhesive straps were carefully applied, to relieve tension upon the sutures. The limb was now tightly and carefully bandaged, which was cut away over the wound to admit of inspection, and allow water dressing. A well padded splint reaching from little below the popliteal space down to the insertion of the upper sutures was applied, and firmly held in place by adhesive strips; to compress and prevent as much as possible the spasmodic action of the Gastrocnemius and Soleus muscles. Two small pads or compresses were placed over on either side of the cut tendon, and held there by straps of plaster to steady the ends of the tendon. To complete the dressing, I improvised Monroe's apparatus for maintaining flexion in ruptured tendo-Achillis, and carefully adjusted it to the limb. The boy was now placed in bed, and water dressing ordered to be applied if there was much heat or inflammatory action. The patient was carefully watched from day to day to see that the dressings were not too tight and the limb made painful from swelling. On the fifth day the dressings were removed, and the sutures taken out. The wound looks well, but little swelling, scarcely any inflammation. The ends of the tendon are well together, and a part of the integument is healing by first intention. The bandages, splint, compresses, and apparatus are again applied, the same general directions given, with the same watchfulness over the case, and waited till the eighth day when the dressings are again removed. The wound is in good condition, but little inflammation has occurred. The integument healed except at the lower corner where the wound is open, and there is a discharge of pus; there is no fault in the coaptation of the ends of the tendon, everything looks favorable. The same dressings except the pads at the sides of the wound, are again applied. The wound is inspected and cleansed every day, when on the fifteenth day, the dressings are removed; wound is in good condition, not much inflammatory action, though discharging a small quantity of pus at same point, a hard ridge is noticed between the ends of the tendon, elevated, not depressed, showing the formation of plastic material, and that repair of the injury is taking place. The integument at one point being slightly adherent to the subjacent tissues. I left off all the dressings except adhesive straps over the wound and Monroe's apparatus, and still kept the patient quiet. Dressed the wound every day till the twentieth day, when it entirely healed externally, though there was tenderness at the point of the wound, with the same prominence. Still continued Monroe's apparatus, but let the boy move about on crutches.

On October 1st, fifty days after the reception of the injury, all dressing was laid aside and treatment discontinued. The wound was comparatively well; there was union by plastic material, of the cut ends of the tendon. He was permitted to walk about. Instead of a depression at the site of the wound there was an elevation. The cure seemed to be complete. The action of the muscles was natural. Nov. 25th, more than four months after the injury, he was attending school, no perceptible fault in walking. He can run as fast and as long as any of the boys. An examination to-day shows the ends of the tendon firmly united, with a hard lump at the point of the injury, possessing some of the characteristics of callous. In this instance the boy is ahead of old Achilles. He was struck by an arrow shot by Paris in the heel, his tendon cut, and he was slain. The stone thrown by the lad, cut this little fellow's tendon off, and he still lives and is well.

DECEMBER 23, 1874.

MODIFICATION OF FEHLING'S TEST FOR SUGAR IN THE URINE.—The *Medical Examiner* for December 1, 1874, contains an article by Dr. W. S. Haines, who claims that, for country practitioners, Fehling's test is unreliable from the fact that the test solution often decomposes. This fact is attributed to the impurity of two of the ingredients of the solution as usually obtained outside the large cities. These ingredients are the neutral tartrate of potash and caustic soda. For these, therefore, he substitutes glycerine and caustic potash, both of which can be more readily obtained in a state of sufficient purity to prevent the solution decomposing.

In this connection we would refer to a little manual by Dr. Austin Flint, Jr., published last year, and entitled, "Directions for the Examination of Urine of Applicants for Life Insurance." Dr. Flint also alludes to the fact that Fehling's test solution is apt to decompose when kept too long, but he observes that this may be entirely obviated by placing the different ingredients in separate solutions, which are only mixed together when required for use.

A CASE OF ACUTE ARTICULAR RHEUMATISM WITH PERICARDITIS, COMPLICATED BY IDIOPATHIC TETANUS.

By EDWARD C. MANN, M.D.,
NEW YORK.

Mr. W., aged 20 years, a native of Germany, by occupation a laborer, applied for treatment Aug. 29th, 1874. He reported that he had been at work in a damp cellar, had been severely chilled, and when seen was suffering from an attack of acute articular rheumatism. He had previously had attacks of rheumatism and was liable to relapses upon sudden changes of the weather. When first seen, his pulse was 89° and the temperature in the axilla 103°. He complained of pain and tenderness in all his joints, and the joints were swollen and the skin reddened. The pain he complained of as being more severe in character than in previous attacks. The tongue was thickly coated and the bowels constipated. The specific gravity of the urine was high and it was of an unnaturally high color. The patient was put immediately upon alkaline with opium at bed-time, and a liniment of soap, chloroform and aconite was ordered to the affected joints. Aconite in small doses was also administered internally. At the end of the eighth day, the pain had nearly subsided, but the patient began to complain of pain and palpitation in the region of the heart. Warm anodyne infusions were ordered to the cardiac region, and the patient passed a moderately comfortable night. Upon inspection the next morning there was revealed a bulging of the cardiac region and percussion elicited an unnatural dullness at the root of the aorta. On the following day, the symptoms before noticed were much increased and the bulging of the cardiac region was more marked. As the pulse was frequent and small, the tinct. of digitalis in small doses was ordered and also stimulants to support the system. As the disease advanced percussion elicited an extension of the dullness to the second rib and beyond the right edge of the sternum. Auscultation revealed a nearly inaudible condition of the heart-sounds together with slight friction-sounds. The pulse became more frequent, and the temperature in the axilla had reached 105° when the patient complained of chilly sensations and a sense of uneasiness in the epigastrium. This sense of uneasiness increased and soon was complained of as pain, and as the patient exhibited great nervous agitation and restlessness, a dose of fifteen grains of hydrate of chloral, with one-sixth of a grain of morphine was administered, which resulted in the patient's passing a comfortable night. In the morning, however, the symptoms were more violent and the patient complained of difficulty in swallowing, owing to stiffness of the muscles of deglutition. The chilly sensations were also complained of as on the preceding evening. The difficulty of swallowing rapidly increased and the muscles of the jaw became very much contracted, causing inability to open the mouth. There were slight spasms, and, at times, partial opisthotonos, which was not as complete nor as well-marked, as in cases of traumatic tetanus. As the disease advanced an intense expression of anxiety characterized the features of the patient, and his eyes presented a widely staring appearance. The alæ nasi were also dilated. The chloral and morphine as before was directed at bed-time, and ice was ordered to the spine. Conium, belladonna, and hypodermic injections of the alcoholic extract of Calabar bean with the addition of water and glycerine, so prepared that twenty minims of the solution contained one-fifteenth grain of the alcoholic extract, were all used in turn, but with little mitigation of the nervous symptoms. The temperature steadily increased until it reached 108° degrees in the axilla, and the pulse, although rapid, was weak and compressible. There was marked wakefulness and great dyspnœa. The pupils were contracted, the walls of the abdomen were hard and froth escaped from the mouth. The patient complained once or twice of intense spasms of the heart, and at times manifested slight delirium. At the end of the sixth day from the development of the tetanus, the patient died in a state of exhaustion. Upon the appearance of tetanic spasms the patient being closely questioned denied having received any bruise or injury of any nature whatever, so that it was clearly a case of idiopathic tetanus, resulting from the exposure to cold and dampness, together with the combined depressing influence of the rheumatism and pericarditis.

A post-mortem examination being made, the body was found extremely rigid, and there was some œdema of the feet. The lungs and kidneys were somewhat congested. The spleen was normal. The pericardium contained a profuse sero-fibrinous exudation, and the surface of the heart and pericardium were somewhat roughened from the deposition of fibrine. There were also signs of some endocarditis. Upon examination of the brain and spinal cord, no inflammation was apparent, nor could any appreciable lesions be detected. A portion of the spinal cord was reserved for microscopical examination. This is a case of unusual rarity and interest, as idiopathic tetanus is a very rare disease, and there are but few cases on record of acute rheumatism complicated with pericarditis, presenting even tetanic convulsions, and, so far as can be ascertained, very few, if indeed any, in which the course of the tetanus has been so well marked. We are very much in the dark as yet regarding the pathology of tetanus, although we may reasonably infer that the lesions, while for the most part unappreciated, are to be referred to the gray matter of the spinal cord, and in idiopathic tetanus, also to functional disturbances of the nervous system.

A variety of opinions have been given regarding the pathology of tetanus, a few of which, in this connection, may not be out of place. Rokitansky has found proliferation of connective-tissue in the spinal cord. Wedl reports congestion of a portion of the spinal cord. Curling says that there is serous effusion with increasing vascularity in the membranes, investing the medulla spinalis, and also a turgid state of the blood-vessels about the origin of the nerves, and Lockhart Clarke holds that we generally find granular degeneration of the cells of the spinal cord. Billroth, and the majority of the pathologists of the present day, on the other hand, have not found lesions in their examinations of the spinal cord and nerve.

However authorities may differ regarding the lesions accompanying tetanus, they are unanimous as regards an unfavorable prognosis. Dr. O'Beirne, in the Dublin Hospital, reports having witnessed 200 cases without a single recovery. McLeod, in his Notes on the Surgery of War in the Crimea, has collected 23 cases, in which but two recovered. Demme speaks of 86 cases in the hospitals of Italy during the war of 1859, of which six were cured. The only cases of odiopathic tetanus on record, have invariably resulted from exposure to cold and dampness. Watson states that Dr. Gregory, of Edinburgh, used to mention in his lectures the case of a man seen and treated by him, who having fallen asleep in moist grass, awoke with a stiff neck, which afterwards developed into regular tetanus. Some years ago there was also reported a somewhat similar case of a man who suffered from well-maked idiopathic tetanus arising from exposure to cold. The case was reported by Dr. Hall of Berwick.

It is easy to comprehend that an injury or irritant, however trivial, may, under certain circumstances and conditions of the nervous system, by acting upon the extremities of the peripheral nerves, produce in the spinal cord a state of excitement which results in the reflex spasms of tetanus; but as Niemeyer remarks, "We are completely in the dark as to the ways and means by which the lesions suffered by the cutaneous nerves in rheumatic tetanus is transmitted to the spinal marrow." With regard to the proportion of patients who recover from tetanus, the same author remarks, "Recovery is extremely rare. Transitory remissions, in which the patient may even enjoy a brief, refreshing slumber, should not be allowed to deceive us. After such pauses, the malady generally breaks out with all its former severity, or even with increased violence. We must not indulge in the hope of recovery unless the seizures continue to diminish in length, and frequently distinct relaxation of the contracted muscles during the intervals, and unless the patient become able to take food and nourishment. Even in the most fortunate cases this takes place with extreme slowness, and it is not until after the lapse of weeks that the muscles entirely lose their tension, and the patient is completely well."

Progress of Medical Science.

Diphtheritic Exudation in Endocarditis.—The case of which the following is a brief abstract is reported by Maier, as occurring at the Clinique in Freiburg. A man of 39, who had previously suffered from several attacks of pneumonia and pleurisy, was admitted into the hospital for an illness that had begun two or three weeks before with a chill and severe pain in the left side. Continuous fever had followed, with loss of appetite, diarrhœa, cough, and pain in the head. He died three days after admission. At the autopsy the free margins of the valves of the pulmonary artery, as well as the surfaces and margins of the aortic valves, were found to be somewhat thickened; while there was an ulcerated opening at the junction of two of the latter, leading to a canal which pierced the base of the interauricular septum, and communicated with the left auricle by a ragged orifice. The left kidney was shrunken and destroyed, while the right contained a large abscess, which communicated with the pelvis of the kidney. Examined by the microscope, the exudation on the ulcerated aortic valves was found to be identical with what is found in the mucous membrane of the pharynx in diphtheria, the characteristic elements being extremely small, shining, spherical granules in a mass of detritus. These bodies were not dissolved by ether, nor did they yield to solutions of caustic soda, nor were they colored by iodine or carmine as readily or deeply as the rest of the tissues. He regarded them, in fact, as independent organic forms, viz., the spherical form of the organisms known as bacteria. Few of these were found in the uriniferous tubules; but they were abundant in the capsules of the malpighian bodies. Maier recalls in this connection, the facts reported by Beckmann, who found the same bodies in the uriniferous tubules and malpighian tufts in cases of puerperal and septic disease. Maier regarded the case as one of primary diphtheritic endocarditis, with secondary embolic processes in the kidney, of a septic character.—*Virchow's Archiv.*, *Dec.*, 1874.

Hypodermic Injection of Ergot.—Dr. P. C. Williams reports three cases of postpartum hemorrhage treated successfully by means of the hypodermic injection of ergot. He advocates this method as prompt, safe and efficient. No abscesses or other bad effects resulted. He used the fluid extract, but also suggests using Squibb's solid extract for this purpose, the extract having been rubbed up with water in the proportion of a grain to the minim.—*St. Louis Medical and Surgical Jour.*, *Dec.*, 1874.

Primary Tuberculosis of the Female Uro-genital Organs.—Klebs says that tuberculosis of the mucous membrane of the bladder is very rare, and occurs exclusively in the male. Dr. Bang, however, relates a case occurring in Prof. Brande's division of the General Hospital of Copenhagen, which he believes is an exception to this rule.

The patient was a woman twenty-two years of age, with whom menstruation had commenced one year previously. Seven months before her admission into the hospital, she had pains in her back in the morning; shortly afterwards she was obliged to urinate frequently, and this act was accompanied by cutting pains in the urethra and over the symphysis pubis. At first there were no chest symptoms and the digestion was good. The urine was light, cloudy and offensive, slightly alkaline, and contained a little albumen, but no blood. The temperature increased gradually, and chest symptoms became somewhat pronounced. Colicky pains then occurred in the course of the right ureter, she became emaciated, and her appearance was more and more cachectic. Finally she had a severe cough and her ankles became œdematous. The post-mortem examination showed that in the duodenum there were two perforations which communicated with the right ureter. The ureter was about an inch in diameter for its whole length. The right kidney was very much enlarged, and had undergone what he regarded as tuberculous degeneration. There was only a little of the cortical substance remaining. The cavity was large and was filled with cheesy and purulent matter. The ureter had also undergone the same process of degeneration. At its lower end a large lump of caseous substance projected into the bladder. The mucous membrane of the latter had also participated, throughout its entire extent, in the same form of degeneration as the other organs. The left ureter was normal, except at its entrance into the bladder, where the mucous membrane was thickened. The lacunæ of the vaginal mucous membrane were the seat of numerous small rosette-shaped ulcerations about the size of a pin's head.—*Hospitals-tidende*, 36, 1874.

A Certain Sign of Death.—The most certain sign by which apparent death may be distinguished from real death, is held by Monteverdi to be the wine-red color of the skin, which is produced by a hypodermic injection of ammonia into the body. The theory on which this fact is founded is that the last act of human organic life consists in absorption. This function does not cease until after complete cessation of the capillary circulation. Liquor ammoniæ is the only reagent yet known, which is reliable as an indication of the activity or cessation of absorption, and, therefore, of the capillary circulation. The brightness and size of the resulting spot is a measure of the vitality which still exists. In a dead body the injection does not produce any reddish discoloration of the skin whatever.—*Giorn. Ven. di Sci. Med., Sept.*, 1874.

CYSTERCERCI IN THE BRAIN.—Giardiani relates the case of a peasant, twenty-five years of age, who was admitted into the hospital of Florence, with symptoms of mental alienation. There was no history of a hereditary tendency to mental disease. There were no febrile, gastric or abdominal symptoms to account for the culminating complication of the disease—the aversion to food. At first the patient spoke a few words, at intervals, but afterwards became mute, and at last broke out into acts of violence against his own person, directed principally against his own head. The radial pulse was 67, the temperature and respiration normal. Subsequently there were involuntary emissions of urine. At a consultation, the case was thought to be the slow nervous fever of Huxam, but on post-mortem examination, a hydatid cyst was found in the left ventricle of the cerebrum.—*L'Imparziale and Giorn. ven. d. Sci. Med.*, June, 1874.

HEMORRHOIDS TREATED WITH ERGOT.—Dr. G. W. Semple recommends the injection of ergot into the rectum for the treatment of hemorrhoids. A half fluid drachm of the extract was used in half an ounce of water. He refers to Langenbeck's method of injecting ergotin underneath the mucous coat of the rectum, but claims that his own method has the advantage of painlessness and facility of employance by the patient himself.—*Virginia Medical Monthly*, Nov., 1874.

ANÆSTHESIA BY INJECTION OF CHLORAL INTO THE VEINS.—Professors Deneffe and Van Wetter report seven new cases in which operations have been successfully performed under the anæsthesia produced by the injection of chloral. They state that this plan has now been successfully tried in eighteen cases, and they give the details of the last seven, one of which was by Oré, of Bordeaux, the originator of the plan.

Oré's case was a young man, twenty years of age, from whom a tuberculous testicle was to be removed. The steps of the operation were substantially as follows: It was commenced at 8.43 A.M., at which time the median basilic vein was punctured, and one minute later 30 grains of chloral had been injected; after twominutes the patient appeared sleepy; the pulse was 112. At 8.51 A.M., there was complete insensibility, and the operation was commenced, lasting seventeen minutes. At 8.59 A.M. there appeared to be some difficulty in breathing, from the relaxation of the tongue, which blocked up the posterior portion of the buccal cavity. By raising the hyoid bone and passing a current over the left hypogastric, this condition was overcome. The amount of chloral injected was about 100 grains, and the injection lasted seven minutes, producing complete anæsthesia, which lasted about an hour.

The patient remained in a deep sleep for fourteen and a half hours, during which time his sensibility was very obtuse. The respiration was always quiet and uniform, and there was no vomiting and no period of excitement. No irritation was observed at the place where the vein was punctured.

Another case was of a woman, forty-eight years of age, who was operated on for entropion. In this case 77 grains of chloral were injected into the median basilic vein, at the rate of about 7 grains every half minute. In four minutes and twenty-five seconds complete anæsthesia of the cornea had been obtained with about 60 grains of chloral. Complete anæsthesia lasted for forty-seven minutes, and sleep for seven hours. The results of the operation were also excellent in this case, and, on the second day following, the patient was walking in the garden. The writers observe that in all these eighteen cases no serious disturbances of respiration have been noticed, which some have claimed take place when this experiment is tried on dogs. In one case, where the patient was very athletic, 150 grains of chloral were given in thirteen and a half minutes. There was no accident in this case, though the first urine passed was found to contain albumen and blood, so that really a slight hæmaturia was produced, but this passed away and the patient did well. The writers remark that they observed less embarrassment in respiration when the solution of chloral was pretty fluid. They have generally used the solution in the strength of one to four of water, but they believe that when it was still more diluted the respiration and circulation were less affected.—*Bull. de l'Acad. Roy. de Med. de Belgique*, 10, 11, 1874.

THE PHYSIOLOGICAL ACTION OF JABORANDI.—Drs. Sydney Ringer and Alfred Gould, of London, have recently experimented upon the action of this new drug. It is found in the interior of Brazil and has been brought thence by Dr. Continho. It consists of the leaves and small branches of a shrub and has an agreeable and somewhat powerful aromatic odor. The dose is from thirty to ninety grains, infused in boiling water. These gentlemen confirm, in a great measure, the statements of M. Rabuteau as to its action on the skin, and they sum up their results as follows:

1. In three out of four cases, jaborandi caused profuse perspiration.
2. Jaborandi acted as a sialogogue, but was less certain in this respect than its diaphoretic effect.
3. In one case it increased the bronchial secretion.
4. It considerably accelerated the heart's action.
5. The temperature fell during its use.

Mr. Martindale, contrary to some high authorities, does not believe that jaborandi is composed of the leaves and stems of the pilocarpus pinnatifolius, and experiment with the latter seems to confirm his opinion. —*The Practitioner*, December, 1874.

ACTION OF CURARA ON THE WHITE BLOOD CORPUSCLES. —At a recent meeting of the Societé de Biologie in Paris, Tarchanoff communicated the results of his researches on the action of curara. The following were his conclusions: If curara acts directly upon the white blood globules it destroys them; on frogs that have been curarized for two days, if the blood of the heart be examined, the white globules are found to have diminished very much in number, while the red globules have increased; the lymphatic spaces, however, are found distended and filled with the white globules. He believes that owing to the absence of muscular action, and under the influence of the increased tension of the capillaries, the white corpuscles accumulate in the lymphatic spaces, but when the action of the curara has subsided, muscular action has returned, and the tension in the vessels diminished, the lymphatic spaces close, the white globules reappear in the blood and the miphological composition of the fluid is again normal. The same phenomenon appeared under the following experiment. When it has been observed that the lymphatic spaces were distended with white corpuscles in a curarized frog, muscular movements were incited by the electric current, and the white corpuscles appeared again in the blood-vessels. He states that there is no destruction of the white blood corpuscles by curaræ as Dorsdorf asserts that this poison passes rapidly through the system, to be eliminated by the kidneys, and is found subsequently only in the bladder. —*Gaz. Hebdom., Dec.*, 1874.

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THE PARASITIC THEORY OF DIPHTHERIA.

There is hardly anything more welcome to the practitioner than the news that we have really found the cause of an insidious disease, that has contrived to defy our best directed efforts. It is a sad contemplation, however, for medical men, that in the great majority of such instances subsequent experience has either not verified the fact, or has shown that it allowed of another interpretation than the observers intended. And yet the agitation of these questions is desirable and is always conducive of good results, for it generally ends in the determination of some new data, that may at some time lead to the discovery of the true poisonous element of the disease. So it is impossible for any one to have watched the progress of medicine for the last few years, without feeling that we are gradually working our way nearer and nearer to the real source of disease, and that notwithstanding we have often failed to find this specific principle, we have at least discovered the conditions under which it lives and spreads. This can be said of typhoid fever, for it seems to be evident that filthy drinking water and the foul exhalations from sewers and privies are the principal agencies by which the disease is spread. That the real poison in all such infectious diseases may be a living one, has long been a favorite idea, both in this country and abroad, and efforts have been made to discover if they depend on a parasite in the sense that favus is dependent on a fungus, and the itch on the itch mite. During the past few years, the number of the adherents of this parasitic theory has largely increased, and it is now claimed by some of them that several of the ordinary epidemic diseases have a parasitic origin. This is particularly true of diphtheria. The facts from which they draw their conclusions in the latter disease are so important, and have such a significant bearing on the treatment of the disease, that we will venture to state some of those that appear to be the most worthy of notice. It is claimed, first of all, that the disease is communicated by contact, and plenty of evidence is brought forward to show that physicians and nurses have taken the disease by blowing through the tracheotomy tubes of the patients, or by having the diphtheritic matter accidentally coughed into their mouths; it is also claimed that the matter is inoculable on animals, and will produce in them a genuine diphtheria. It is admitted that the virus may not always be successfully inoculated, as in the case of Trousseau, although this fact does not disprove the theory, for vaccine matter often fails to take, and yet it undoubtedly contains a specific poison. Regarding this point as satisfactorily shown, and it certainly is in accordance with what we know of the general history of the disease, the adherents of this theory have tried to discover the specific element. We are told by Oertel, who is one of the authorities on this question, that in every form of diphtheria he found vast collections of minute, bright, round bodies, so small that they could barely be seen by lenses of high power, and to which he gave the name micrococci. He tells us that they increase in numbers as the disease increases in intensity, and when the disease is most active, and diminish in numbers when the disease abates; that they are found filling the lymphatic vessels leading to the glands in the neighborhood of the diseased parts, and in many cases block up the minute vessels and capillaries, especially in the kidney, which he tells us is an organ that is one of the earliest attacked. These minute organisms are regarded by him as the essential elements of the disease. Another German authority has gone so far as to separate these bodies from the various diseased tissues, and even from the urine of diphtheritic patients, and claims that these bacterial bodies, when used as inoculating material, have produced the disease in animals.

These are strong facts to be brought forward, and it is interesting to know what the opponents of the theory state. It must be observed that they do not attack the facts so much as the inferences drawn from them. They claim, in the first place, that the micrococci, as well as multitudes of other bacterial organisms, actually exist in the body in health. This fact is undoubtedly true, and any one who is familiar with the microscope has frequently seen bodies in the various tissues that almost exactly resemble them. In fact, it is admitted that they may be found in almost every one's mouth, about the teeth, and it has been asserted by some German authorities, that they are the cause of carious teeth; nor do they seem to be found simply in putrid fluids, but also, sometimes, in the blood during health. But the most damaging fact is, that these same micrococci have been found, in one instance, in the exudation on the cardiac valve of a puerperal woman who died of septicæmia and had no symptoms whatever of what we know as diphtheria. In a case of hospital gangrene, too, similar bodies have been found, and the same is said of pyæmia.

If we take all these facts into consideration, and there seems to be no good reason for doubting most of them—for the observations appear to have been made with care—the present aspect of the case would appear to warrant us in concluding that the disease we know as diphtheria has not a peculiar parasite of its own, or else we shall have to enlarge our idea of diphtheria so as to include under it such other diseases as pyæmia, septicæmia, and hospital gangrene.

PROF. DALTON ON EXPERIMENTATION IN ITS RELATION TO VIVISECTION.

Concerning the necessity of vivisection there is no question with the profession. No body of men are better calculated to judge of its benefits, or more able to decide upon its influence in insuring progress in our art. With outsiders, however, the subject presents itself in an altogether different light, and it is a very easy thing to misconstrue motives, to misinterpret necessities, and look upon any physiological operation as a wanton piece of cruelty. We can hardly blame even educated non-professional people for entertaining such ideas, for ordinary humanity shrinks from any attempt at needless infliction of pain upon the lower creation, and it requires not a little stretch of enthusiasm for science to tolerate it. When, however, there arise men who pretend to be informed of all the necessities which bring the so-called cruelties into play, and who attempt to prove that all vivisections are not only needless to science, but are only the brutal exhibitions of heartless experimenters, it is time that all the facts of the case should be presented to the public. Such an attempt has been made by Prof. John C. Dalton, M.D., the author of the well-known work on Human Physiology. This gentleman has performed the task so well, that there is now no excuse on the part of legislators and the public at large for any want of the kind of knowledge they should possess, to be able to judge the merits of the case from a thoroughly impartial standpoint.

He gives a very interesting history of the influence of experimentation in determining the existence, character and uses of the different functions of the body, and has conclusively proven that without such experimentation we should be denied the benefits of some of the grandest triumphs of our art.

In regard to the charge that the infliction of pain is one of the invariable accompaniments of such operations, he says:

"In the few instances where the infliction of pain is a necessary part of the experiment, this pain is small in amount and momentary in duration. It would be an entire misapplication of terms to call it torture, or to apply to it the extravagant descriptions which have been sometimes employed. These are mostly cases in which the sensibility of a particular nerve or nervous centre is to be tested for a special purpose. In order to obtain the requisite information, it is simply necessary to apply so much irritation as will reveal the presence or absence of sensibility in the part: and when this is done the work is accomplished. A slight irritation, if it succeed, is all-sufficient; and if a more violent one be necessary, it is because the sensibility of the part is deficient, and, of course, the amount of suffering is diminished to a similar degree. The same thing is often necessary in the treatment of the human patient, in cases of paralysis, in order to determine whether and to what extent the power of sensibility is affected by the disease."

The necessity for experimentation on living animals is very clearly and forcibly presented. "If we desire to know anything," says Dr. Dalton, "about the vital actions, it must be by investigation of the body during life;" in otherwords, post mortem dissection is a study of the human machine at rest, while vivisection is an investigation of the vital forces which control this machine when in full operation. As one of the most striking examples of this distinction, he refers to different properties belonging to the fifth and seventh pairs of nerves.

The charge of needless repetition of experiments is very well answered by a reference to the complicated functions of the pneumogastric. With apparently the same object in view, the experimenter is constantly interrogating nature in new directions. In fact, in all its complicated relations there is so much more to be learned, that experimenters are only just entering one of the most promising fields of physiological research. This is particularly true when we consider what an important relation this nerve bears to glycogenesis, and what light may yet be thrown, by a more thorough study of its functions, upon the pathology of diabetes.

It is unnecessary to follow the author through this *brochure*; suffice it to say, that he has left nothing undone to prove the great benefits to science which vivisection has conferred. It is one of the best written pamphlets of the day, and gives in a condensed and readable shape the histories of the discoveries, every one of which has marked an epoch in the history of medical progress.

In view of the threatened attempt on the part of the Society for the Prevention of Cruelty to Animals to expunge from the existing Act for the Prevention of Cruelty to Animals the clause, "excepting properly conducted scientific experiments or investigations," this pamphlet, coming as it does from the one of the first physiologists of the country, is very timely. The last time the Humane Society made a similar attempt Dr. Dalton was influential in causing the exceptional clause to be inserted, and this time he is ready and willing to defend that action.

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The American Journal of Syphilography and Dermatology.—The further publication of this journal—so its former publishers tell us—has been suspended.

Reviews and Notices of Books.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. Von Ziemssen. Vol. I. Acute Infectious Diseases. American Editor, Dr. Albert H. Buck, of New York. New York: William Wood & Co., 27 Great Jones Street. 1874.

Recently, when we had the pleasant task of looking over the advance sheets of this magnificent work, we emphasized the masterly manner in which Liebermeister has presented the subject of the infectious diseases, and we called attention to the striking merits of his article on typhoid fever. The completed volume now lies before us, a handsome octavo of 708 pages, printed in a pleasantly large and clear type, and on excellent paper. We are glad to say that the work of translating has been done in a highly satisfactory manner, so that the difficulties of the foreign tongue have been successfully mastered, and the author's ideas are faithfully rendered in good English. Under the able editorial management of the American editor, Dr. Albert H. Buck, we find that each detail has been carefully supervised, while he has improved upon the German edition, by furnishing us with an excellent index and interesting biographical sketches of the different authors. We feel that we should be unfair if we left the subject of typhoid fever without adverting to the very practical deductions which come in at the close of the monograph, for while the scientific aspects of the disease are given a thorough and critical analysis, the treatment and prophylaxis receive hardly less attention. The methods he advocates follow naturally from the theories he maintains of the nature of the contagious principle, and the results that he gives, as obtained from his hospital experience in Basle, offer very good ground for sustaining the justness of this theory, and seem to demonstrate conclusively that the cold-water and quinine treatment is the most successful that has yet been offered to the medical profession. The author found, according to statistics, that 41 per cent. of the typhoid patients died from an excess of animal heat, while in the remainder the same influence was instrumental in producing the complications or the fatal result, and he believes accordingly that if the patients are guarded against the deleterious influences of excessive animal heat, typhoid fever will no longer be one of the very dangerous diseases. Accordingly, he has combated the excessive heat by anti-pyretic remedies, first among which comes *cold-water*. This form of treatment, he states, was first inaugurated by James Currie; but it had fallen into disuse until revived by Niemeyer, himself and others. It has, doubtless, a vast number of opponents, but their numbers are gradually decreasing in Germany, as the supposed dangers of the treatment are shown to be, for the most part, imaginary. Thus it has been claimed that it is likely to produce intestinal hemorrhage; but it is now shown by statistics that intestinal hemorrhage, as a complication, has materially diminished under the cold-water treatment, for since its introduction, the mortality has been $6\frac{2}{10}$ per cent. as compared with $8\frac{4}{10}$ before, and besides it is not so very fatal, for out of 127 such cases 78 had recovered, under his own observation. The author here alludes to the statements of Wunderlich, which not only sustain this idea, but even go farther and show, apparently, that intestinal hemorrhage is a circumstance which is apt to be dependent on the quality of the epidemic rather than any method of treatment.

The plan he recommends is always to suit the particular method to the wants of the case, and try and secure the desired result with the least inconvenience to the patient. Thus, for adults, he says, employ the *full length cold bath* of 68° Fahr. The duration of the exposure should be from five to ten minutes, varying with the strength of the patient. Perhaps, in some instances, it may be well to begin with a temperature as high as 95° Fahr., and then to lower it gradually to the required standard, by the addition of cold-water (Ziemssen's method). Employ the bath, he says, when the temperature in the rectum reaches 103° or in the axilla 102.2°. In children, however, it may not be necessary to resort to the bath until the temperature is about one degree higher. These baths should be continued at intervals, so that an average of from four to eight a day are given. In occasional instances they may be given every two hours, if the fever is very severe or obstinate. They are to be suspended when the temperature in the rectum reaches 101.5°.

The cold water treatment may also be carried out effectually by *cold affusions*, *cold packs*, *cold sponging*, and even by *cold drinks*. As to the use of quinine, the author was extremely skeptical as to its efficiency, until the results of Vogt were published in 1859. Following out the plan of this writer, he began giving quinine in large doses, so that from 22 to 45 grains of the sulphate or muriate were given daily. The following rules are laid down for the administration of the remedy, and he strongly insists on the necessity of carrying it out fully and to the letter. The daily amount is to be taken within the space of a half-hour, or, at the furthest, an hour, and he usually prescribes a powder of 7½ grains every ten minutes, until the desired amount is taken. If quinine is given in even larger doses which are distributed over half a day, the effect on the temperature is often hardly perceptible, but if given in the way here directed the doses will not have to be repeated again for 24, and perhaps not for 48 hours.

The effect of these doses may be readily observed by the thermometer, for the temperature will commence to fall in a few hours, and it will continue falling gradually until from six to twelve hours have passed, when it will have reached the minimum. It will then gradually rise again, but usually will not reach as high a point upon the second day. The amount of the dose must be proportioned to the effect to be obtained, and the result will not be satisfactory unless the temperature is reduced to nearly the normal standard, that is, to 100·5° in the rectum. If this is not done by the first dose, the next must be increased. If, on the other hand, the first dose reduces the warmth to 98·5° or below, which is not uncommon, then the next dose is to be diminished. After the second week less quinine will be required to produce a given fall in the temperature. Occasionally digitalis may be given in combination with quinine, the best form being the substance, of which from 11 to 22 grains may be given so as to extend over a period of from 24 to 36 hours. The infusion is regarded as less effective. In attacks which resist the other methods of treatment, this plan often succeeds, especially if followed by from 30 to 45 grains of quinine. It should be understood that digitalis is only to be given in those cases where there is cardiac weakness, where the pulse has not yet become extremely frequent, or at least, is still tolerably strong. The rule for its application in typhoid is not the same as is commonly observed in many diseases of the heart, for the more frequent the pulse the less indication is there for digitalis. The author also uses veratria in some obstinate cases, but he believes that quinine, digitalis and the abstraction of heat by cold baths are among the most important antipyretic agencies, and are absolutely indispensable to the effective treatment of the fever. We naturally are eager to observe the results that are obtained in this way. The author states them as follows: formerly there was a mortality of 27 per cent. under indifferent, expectant, or symptomatic treatment; of 16 per cent. under an incomplete apyretic treatment, while there is now a mortality of only 8 per cent. under a systematized apyretic treatment. The antipyretic treatment therefore, is both logical, and is shown to be the most successful that has yet been offered to the medical profession.

As the *prophylaxis* of the disease involves our knowledge of the way in which it is propagated, the discussion of this subject forms an important topic in the article. According to the evidence we have at present, those are two principal media by which the specific germ or contagium is conveyed into the system. *Drinking water* is the most important of these and next come the *exhalations from privies or sewers.*

Instances are stated in which both of these agencies have spread the disease, and in some cases where it has been shown that the dejections of typhoid patients have contaminated the drinking-water or fouled the air, the fever has broken out with alarming virulence. On the other hand, when the drinking-water has been obtained from sources of undoubted purity and the dejections in privy vaults, etc., have been thoroughly disinfected, the disease has abated in a most marked manner. The deductions therefore are clear. Wells and all the sources of the water supply should be most carefully guarded from the possible admission of contaminating substances and all dejections from typhoid patients should be thoroughly disinfected. "This latter is easily accomplished," says the author, "by strewing the bottom of the vessel with a little sulphate of iron and then immediately after a passage crude muriatic acid is to be added so that it amounts to from one-half to one-third the bulk of the excreta." In this way the germs are destroyed. Much of this portion of the article will certainly have a very general interest, not for the practitioner only, but for the sanitarian, and it merits a most careful and attentive perusal for the interesting facts and valuable suggestions it contains. The translation, which is excellent, was done by Drs. Delafield and Shauffler.

The subjects of typhus fever, relapsing fever, bilious typhoid, and cholera next follow in order. They are from the pen of Prof. Lebert, and the translators are Drs. Van Harlingen, Fitz and Whittaker. Dr. Lebert, the author, has long been known to the profession as the author of "Lebert's Plates." His early works, including his "Physiologie Pathologique" were written in French during his residence in Paris. Latterly he has held a professorship in Breslau and his writings have been in German. We naturally expect to find him strong in pathology, for to this he has devoted the greater portion of his life. In his introduction he discusses the relation of minute organisms to disease, but he tells us that his researches on relapsing fever, typhus and cholera have been negative, except in the former, for he has been unable to find any organisms that could be shown to have any causal connection with the diseases: in relapsing-fever he believes that the spirilla discovered by Obermeier have a causal connection with the disease, inasmuch as he never failed to find them in the blood of the patients during the period of the fever.

In other cases he has been more successful. In 1846, he investigated the hospital gangrene of scrofulous ulcers observed in the Children's Hospital in Paris, and found that the entire tissue detritus of the ulcers was filled with myriads of moving bacteria. A somewhat similar disease was observed by him in frogs in 1856–8. He also investigated the silkworm disease, which caused such widespread calamity in certain portions of France, where the disease was found to be due to a minute fungus penetrating every tissue of the body, the egg as well as the fully-developed moth, and constituting the disease known as muscardine.

The author, however, states that he is non-committal in his general views on contagion and infection. He does not believe that the contagious or infectious principle is a chemical poison, for toxicology teaches us that there is no poison, organic or inorganic, that can attack and decimate entire populations. There may be, it is true, certain ferment poisons like those of hydrophobia which, introduced in small quantities, exert an intense influence over the system. It is not certain, however, that such a virus does not contain minute organisms. On the other hand, we have conclusive proof that certain diseases are of parasitic origin and the history of infectious diseases and the process of infection is in accordance with the theory of the existence of a *contagium vivum.* Yet he thinks the theory of parasitic infection cannot at present be adopted for the infectious diseases as a whole. The treatment is discussed at some length, but the author is evidently not sanguine as to the results of any special forms of treatment. In this respect, therefore, he will probably fail to meet the expectation of all. Yet he discusses these subjects with great care and thoroughness and shows that they have been the work of a scholarly and scientific practitioner.

The articles on the Plague and on Black Death are by Liebermeister. They are necessarily included in the list of acute infectious diseases, but they deservedly occupy but a short space, for they are of no interest to the general reader. The translation is by Dr. Normand Smith.

The article on Yellow Fever is by Dr. Haenisch, and is translated by Dr. Emerson. The author had, we understand, some unusual facilities for studying the disease in the West Indies; but we can hardly expect that the Germans can supply us with much information on a subject that is more properly our own and that can be of little practical importance to them.

The article on Dysentery is by Professor Heubner, and is brief, concise, and well written, and gives a fair statement of the views now in vogue on this subject. It is translated by Dr. Putnam, of Boston.

Probably the article on Diphtheria, by Dr. Oertel, will be read with most interest. It is translated by Drs. Bridge, Stimson, and Emerson. It is probably the most thorough and exhaustive that has been written on the subject, and will repay careful study. The author claims that this disease is one of the oldest of the human race, though until the time of Bretonneau it was never accurately described. Prior to this time it was apt to be confounded with scarlatina, etc.; he did not, however, distinguish between croup and diphtheria, except that he regarded the latter as a higher expression of the former. Virchow taught that in diphtheritic inflammation there was an exudation into the substance of the mucous membrane, followed by mortification in this membrane from cessation in the supply of nourishment, while in croupous inflammation the exudation lay upon the surface. Wagner endeavored to prove that both were one and the same disease, but that croup never passed the bounds of the local process. While these and similar discussions were going on, Hueter and Oertel observed that the diphtheritic membrane, the subjacent parts, and even the blood, contained low organisms, to which the name of *micrococci* was given. These little bodies are extremely minute, round, shining spheres that can just be recognized under lenses of high power. The author is careful to differentiate these bodies from the other parasites found in the body, and adopts the classification of Cohn, which seems now to be generally recognized by mycologists. Having observed that these micrococci were present in the diphtheritic exudations, lymphatic glands, blood, and kidneys, as well as in other organs of such patients, he proceeded to inoculate the exudation upon the cornea of animals, and obtained, he tells us, a diphtheritic keratitis. We are also told of a number of instances in which the attending physicians have lost their lives by direct contact with diphtheritic matter. On the other hand, in some instances inoculation experiments have not succeeded, though this cannot be regarded as invalidating his theory, for the same is true of all specific poisons. The author also believes that he has demonstrated that the disease is at first a local one, and radiating from this point, becomes a general infection of the whole body. The other theory is, that it is a general infectious disease, which secondarily localizes itself upon the mucous membrane of the throat.

Probably the most important argument in favor of the author's theory is, that these organisms have been found in the vasa afferentia of lymphatic glands in the neighborhood of the diphtheritic exudations, in some instances almost completely filling the vessels; also in the kidneys at every stage of the disease, and in various other organs. Another argument that will carry weight is, that while many forms of parasites are present in the exudations during the early periods of the disease, it is the micrococcus and bacterium termo that multiply with the greatest rapidity and are found subsequently in the affected tissues during the height of the disease; during convalescence, these forms diminish in number and are superseded by the ordinary forms commonly found in the system. Again, we are told that the intensity of the infection is proportionate to the degree in which the tissues are invaded by these organisms.

The author states his views positively, believing with Eberth, that without micrococci there can be no diphtheria, and that "they are inseparable from the diphtheritic process, just as the bacteria of decomposition are necessarily connected with decay and act as a ferment." Perhaps these facts are indisputable, and many observations appear to sustain them; and yet it does not appear that these organisms are found alone in the disease which we, in this country, regard clinically as diphtheria. This subject is one of such great importance that it is to be hoped further inquiry will be made into it.

Space will not permit us to sketch the plan of treatment recommended, and which will be read with interest because of its thoroughness. The author expresses himself as most decidedly opposed to cauterizations, astringent gargles, and the like, and finds the greatest advantages are obtained from the vapor of hot steam, and gives excellent reasons for so doing; a supporting treatment is necessary to sustain the system against the prostration which accompanies the general infection. This article closes the book. In conclusion we state unhesitatingly, that if this volume is the type of those that follow, the Cyclopædia will certainly be the most valuable contribution to the subject of internal medicine that has yet appeared, and will mark an important era in the present progress of medicine.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 23, 1874.

DR. H. KNAPP, PRESIDENT, in the Chair.

ANEURISM OF AORTA—LARYNGOTOMY, WITH TEMPORARY RELIEF.

DR. JANEWAY presented the larynx, heart, aorta, and lungs removed from a man who was admitted to Bellevue Hospital, Dec. 19, 1874, and who gave the history that he was about 33 years of age, and had had attacks of difficult breathing for six weeks previous to his admission; that these attacks had been accompanied by some hoarseness, and he had had some hoarseness in the intermediate time. Three or four days previous to admission he suffered from very severe attacks of dyspnœa, and it was to obtain relief from this symptom that he sought admission to the hospital. Upon admission, he was in the extreme state of dyspnœa. An examination with the laryngoscope was made with considerable difficulty, when it was discovered that there was almost complete paralysis of the left vocal cord. This condition, taken in connection with the fact that he had had paroxysmal dyspnœa, without any condition of lung to account for it, made the diagnosis probable that an aneurism was pressing upon the left recurrent laryngeal nerve; and that the aneurism probably was not large for the reason that there was no murmur, nor well-marked dulness accompanying it. The condition of the patient, however, would not permit a thorough examination.

Laryngotomy was directed in case the attacks of dyspnœa became more alarming, and in the night of the same day the operation was performed by Dr. Knox, then acting house-physician. A small quantity of blood entered the larynx, but was sucked out through a catheter. After the operation the man became quiet, face assumed almost the normal appearance, and his voice returned when the larynx became cleared.

During the night other attacks of dyspnœa came on, accompanied by stridulous inspiration and expiration as before. The operation, however, produced temporary relief, and life was probably prolonged nearly twenty hours.

The *post-mortem* revealed an aneurism springing from the back part of the transverse arch of the aorta, with some little widening of the vessel at the junction of the ascending with the transverse arch. The aneurismal sac pressed back upon the trachea, and reached as far as the left subclavian. The pneumogastric nerve was found bound down by some newly formed connective tissue. The recurrent nerve was found upon the top of the tumor, and also bound down. Both nerves, therefore, were found involved in the tumor. Upon the inner surface of the trachea, on the left wall, just above the bifurcation, and reaching just to the upper part of the left bronchus, was a small ovoid tumor about an inch and a half in length, which almost occluded the trachea. It was the wall of the trachea which had yielded to the pressure of the aneurism. It was noticeable that the opposite wall of the trachea had been arched out so as to make room for the passage of air. This tumor was elevated about half an inch above the inner surface of the trachea.

There was, then, pressure upon the recurrent and pneumogastric nerves; pressure upon the trachea, and somewhat upon the left bronchus, but without complete obstruction of either. The doctor remarked that he had seen the operation of laryngotomy performed several times for the purpose of obtaining relief from pressure upon the recurrent nerve in cases of aneurism, but in no case had life lasted longer than a week. The prolongation to life, however, has been sufficient to warrant the operation, and it is justifiable even if life is prolonged only a few hours. The kidneys showed evidences of Bright's disease.

Dr. Janeway also exhibited a specimen of blood taken from a patient suffering with leucocythemia. The spleen of the patient is enlarged, extending twelve inches in the longitudinal direction, and ten inches in the transverse. The globules measured from $\frac{1}{3000}$ to $\frac{1}{2000}$ of an inch in diameter, and were present in the proportion of about 1 in 10.

Dr. Knapp presented a specimen of medullar cancer of the retina. After which the Society adjourned.

NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY.

Annual Meeting, December 21, 1874.

The President, Dr. Meredeth Clymer, in the Chair.

MOTORIAL FUNCTIONS OF CEREBRAL CONVOLUTIONS.

Dr. Allan McLane Hamilton presented a new form of Dynamometer devised by him.

Dr. John C. Dalton presented the Report of the Special Committee upon "Experimental Researches on the Motorial Functions of the Cerebral Convolutions." The experiments on which the report were based was performed on five dogs. weighing each from five to eleven kilogrammes, anæsthesia being more or less complete. A portion of the cranium and dura mater was removed on one or both sides over the hemispheres, and the exposed surface stimulated at different points by a galvanic current generated by from eight to sixteen zinc-carbon elements, immersed in a solution of bichromate of potassium and dilute sulphuric acid, the electrodes being usually applied one millimeter apart. This strength of current, barely perceptible on the cheek and not painful on the tongue, was thought to give more precise results than those by a more powerful current. The electrodes were applied for about one second. Twice they were applied alternately to the dura mater and to the surface of the brain, and difference in effects noted. After a particular spot had been found where the application of the electrodes caused a distinct muscular contraction, it was repeated until a slight brownish discoloration appeared, and then its site was fixed by the insertion of a pin. The animal was then killed and the brain kept in spirit.

Details of numerous experiments were given and the brains exhibited, with the pins *in situ*. The observations of the committee confirmed the most important of the results of Hitzig's experiments and those who followed him. There is no doubt that these certain limited areas on the surface of the cerebral convolutions where galvanic excitation will cause distinct momentary contraction of separate muscles or groups of muscles on the opposite side of the body, whilst similar excitation of other points not more than 5 mm. distant will be without effect. There appears to be correspondence of function in similar points of both hemispheres, though this cannot be positively stated, the two sides of the dog's brain never being wholly symmetrical, as regards fissures and convolutions. An apparent exception exists in a special point, which, when excited, was followed by flexion of the head and neck; both sets of muscles, either right or left, either acting together, or else each one showing the power to flex the head without causing lateral deviation. "All the centres of motion for the anterior and posterior limbs are situated in the convolution immediately surrounding the frontal fissure, so well marked in the dog, and running outwards from the median fissure, and situated about the junction of the anterior and middle thirds of the brain, as seen from above. The centres for extension and flexion of the anterior and posterior limbs were always found in the external part of the pre-frontal convolution. just anterior to this fissure, and in the post-frontal convolution just behind it. In most instances those for the fore-limbs were more in front, near the outer extremity of the frontal fissure, and those for the hind limbs more posteriorly and inward, but the exact site varied a little in different experiments. The centre for flexion of the head and neck in the median line is in the lateral and anterior part of the pre-frontal convolution, where it bends downward and outward. That for flexion, with rotation toward the side of the stimulus, is in a part of the convolution situated still further toward the front and downward, invisible in a view of the brain from above. The centre for the facial muscles is in the lateral part of the hemisphere immediately about the supra-sylvian fissure. These results correspond nearly exactly with these of Hitzig.

The committee was not able to indicate precisely the motor points for flexion and extension of the fore and hind limbs respectively, for in some cases their position varied more or less in the different animals, and in some a single application of the electrodes would produce movements in more than one set of muscles.

The committee are led to the conclusion, that centres of motion in the cerebral convolutions exist, and that when the galvanic stimulus is applied only and exactly to the centres, movements will follow peculiar to themselves. The report was accepted, and, on motion, the discussion was postponed to the next meeting.

Dr. E. G. Loring, Jr., read a paper on "The Retinal Circulation and the Mechanical Causes of Choked Disk," which was largely illustrated. It was shown that the general circulation might be profoundly affected, by drugs, electricity or mechanical interference, as by ligature of the vessels of the brain, and yet the circulation of the eye remain uninfluenced, or very slightly. Now, either the circulation of the eye is not a reflex of that of the brain, though directly derived from it; or if the retinal circulation be a reflex of the cerebral, then it follows that the influence exerted on the circulation of the brain by direct agents is very much less than hitherto supposed. From the similarity of the physical conditions and arrangement of the circulation of the eye and that of the brain, the question arose whether there was any pulsation of the cerebral arteries, and reasons were given for inferring that as there was no pulsation in the arterial circulation of the eye, there ought, by analogy, to be very little in the cerebral.

Graefe's theory of the production of choked disk by increased intra cranial pressure, and Benedict's hypothesis of a neuro-paralytic origin, were reviewed, as well as the Schwalbe—Schmidt's—which assigns as cause the passage of fluid from the arachnoid space between the outer and inner sheaths of the optic nerve. The consideration of the several views leads to the conclusion that Benedict's theory is the least assailable, because, perhaps, the least demonstrable.

In the discussion which followed, Dr. Noyes thought we were not yet on solid ground. The theory of extension of fluid from the brain was not proved, yet such extension had been clearly shown in some autopsies. Most autopsies show fluid at the ocular and not at the cerebral end of the nerve. As the nerve approaches the eye is increased by the accession of vessels, and about its entrance into the ball a vascular ring is formed. It is to be remembered that the nerve can only find room for expansion in the longitudinal direction. Caution is necessary in deducing cerebral conditions from examination of the ocular end of the optic nerve.

Dr. Derby showed drawings made by Dr. Norris, of Philadelphia, illustrating a case referred to in Dr. Loring's paper. He thought the unreliability of the ophthalmoscope in the diagnosis of cerebral hyperæmia and anæmia was conclusively proved.

Dr. Knapp remarked that we must discriminate between two forms of choked disk: that from neuritis ascends with inflammatory action in nerve or sheath and distinct elevation of disk, and that wherein fluid exists between the layers of the optic sheath, blood may sometimes ooze from the brain through the intervaginal space into the eye. There is considerable space between the optic nerve and the optic foramen. He believed, with few exceptions neuro-retinitis pointed to cerebral disease.

Dr. Dalton regarded the absence of arterial pulse in the eyeball as a remarkable fact, and pulsation in the veins under abnormal conditions as more incomprehensible. We may, perhaps, explain the non-pulsation of the arteries, but not the pulsation of the veins.

Dr. Loring could only suggest as an explanation that the arterial walls were more elastic and denser than those of the veins.

Dr. J. J. Mason could confirm Dr. Loring's observations on the lack of effect of galvanization of the cervical sympathetic upon the retinal circulation.

The Society went into Executive Session for the election of officers for the ensuing year, and adjourned.

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ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 3rd to January 9th, 1875.

Kinsman, J. H., Assistant Surgeon.—Assigned to duty at Fort Abraham, Lincoln, D. T. S. O. 284, Department of Dakota, Dec. 30, 1874.

White, R. X., Assistant Surgeon.—Relieved from duty in the Department of the Gulf, and to rejoin his proper station in the Medical Division of the Atlantic. S. O. 278, A. G. O., Dec. 30, 1874.

Wiggin, A. W., Assistant Surgeon.—Relieved from duty in Department of the Columbia, to report in person to the President of the Army Medical Board, at New York City, for examination for promotion, and upon its completion, by letter to the Surgeon-General. S. O. 3, A. G. O., January 6, 1875.

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The Small-Pox Hospital, on Blackwell's Island, has been transferred by the Commissioners of Public Charities and Corrections to the jurisdiction of the Board of Health.

The Commissioners have also resolved to designate one day of the week when the steamer *Bellevue* should carry poor passengers between the City and the Island institutions free of charge.

Medical Items and News.

Prof. Benjamin G. Wilder will give the course on physiology in the Medical School of Maine at the next term. Dr. Edwin Bantly, U. S. A., has been appointed resident physician of the Insane Asylum, at Napa, Cal. Dr. Lombe Atthill has been elected President of the Dublin Obstetrical Society. Prof. T. Gaillard Thomas's work on the Diseases of Women is being published in Spanish by D. Appleton & Co.

A Singular Libel Suit.—Dr. Baird, of Daylesford, Australia, sued the town-clerk for £100 damages for having spoken of him as a "bounding medical kangaroo." The judge thought the phrase might be considered rather complimentary than otherwise, and the plaintiff was nonsuited with costs.

A Hygienic Institute is to be erected at Munich, to be placed under the directorship of Professor von Pettenkofer.

Academy of Medicine.—At the meeting of the Academy of Medicine, held on the 7th inst., the following officers and members of committees were elected:—*President*, Dr. S. S. Purple; *Vice-President*, Dr. Gouverneur M. Smith; *Trustee*, Austin Flint, sen. *Committee on Admissions*, Dr. M. Blumenthal; *Committee on Medical Ethics*, Dr. T. M. Cheesman; *Committee on Medical Education*, Dr. E. R. Peaslee.

The Academy has acquired a title to the house No. 12 West Thirty-first St. The building is twenty-eight feet wide by sixty to sixty-five feet in depth, and is said to be well adapted to the purposes of the Society. The necessary alterations will not be possible before May, and it will not be ready for occupation before fall.

Dr. Friedrich Rochleder, Prof. of Chemistry in the University of Vienna, died Nov. 6, 1874.

Dr. William Marsden, of Quebec, has been elected President of the Society for the Prevention of Cruelty to Animals in that city.

The Boston Medical and Surgical Journal commences its ninety-second volume with a new departure, its proprietorship having been transferred from David Clapp & Son, its former publishers, to the Editors. It is now published in, a much improved style, by H. O. Houghton & Co.

The Albany Medical College recently graduated forty-seven students—the largest class the institution has yet had. Governor Dix made the address, and, among other remarks, suggested that the preservation of health should be as studious a care to them as the cure of disease.

Elephantiasis in Canada.—According to the *Toronto Globe*, there have been lepers for the last eighty or ninety years near the mouth of the Miramichi River.

The Students at St. Petersburg are stated to be in rebellion against Professor Cyon on account of the strictness of his examinations.

Prof. Huxley is to undertake the duties of the Chair of Natural History in the University of Edinburgh during the ensuing summer session, in the absence of Prof. Wyville Thomson, who is with the Challenger Surveying Expedition.

Delinquent Subscribers.—The last number of *The Doctor* contains a notice that it will publish the names ot all subscribers who persistently neglect to settle their subscriptions.

Dr. James Van Zandt Blaney, late Professor of Analytical Chemistry, who recently died in Chicago, was born at Newcastle, Delaware, May 1st, 1820. His death resulted from an organic disease of the liver, which had troubled him for the past two years, not assuming an aggravated form, however, until about six months ago. He graduated at Princeton, and received his medical education at the University of Pennsylvania. He was a pupil of Professor Henry, at the Smithsonian Institute, ably assisting that gentleman in his chemical laboratory. He removed to Chicago thirty years ago. In connection with Professor Brainard, he founded the Rush Medical College, and upon the death of President Brainard, in 1866, succeeded him, filling the position until compelled by ill-health to resign, some three or four years ago. He also founded the Chicago *Medical Journal*, and ably edited it for some time. He was looked upon as the most distinguished chemist in the Northwest, and he was also a skilful physician. He was at one time Professor of Chemistry in the Northwestern University, and was also Medical Director in connection with several departments of the Union army in Virginia. He occupied this position on the staff of General Sheridan at the battle of Winchester, and took charge of the wounded in the hospitals. Dr. Blaney was married July 8th, 1847, to Miss Clarissa Butler, niece of Benjamin F. Butler, of New York, who was Secretary of War during Van Buren's administration.

Percy—Suddenly, of apoplexy, at his late residence in Brooklyn, N. Y., on Monday evening, January 4, 1875, Dr. Edward R. Percy, in the fifty-seventh year of his age.

The Cholera and the Plague.—The Turkish Government has sent Dr. Arif Bey, Vice-President of the General Board of Health for the Empire, to Mecca, to make preparations against an outbreak of cholera among the pilgrims who will shortly congregate there. The reason of this precaution is the report of the ravages of cholera in the Dutch possessions in the Indian Archipelago, from which settlements large numbers of pilgrims are expected. The cholera of 1865, which spread through Europe and America, was, the Turkish authorities believe, brought by pilgrims from the Indian Ocean. The plague, after an absence of fifty years, has broken out near Mecca. Dr. Charles Müllingen, of Constantinople, has been sent to the infected locality. The plague is now believed to be a malignant form of typhus fever. This theory is confirmed by the investigations of the late Dr. Lavel, a French Surgeon-Major, who recently lost his life while studying this epidemic in Tunis, where it has also appeared.

The London Hospital Sunday Fund.—At a meeting of the Trustees of the London Hospital Sunday Fund, which was held December 16, the gross receipts for the year were stated to be £29,678, which sum is £2,000 greater than the collection of the preceding year. Of this amount £25,307 has been given to fifty-four general and special hospitals and eight institutions, and £3,040 to forty-five dispensaries. A committee was appointed to prepare a rule for the granting of the funds. June 13 was appointed as the Hospital Sunday for this year.

The Protection of the Postal Rights of the Insane.—The House Postal Committee to-day agreed to report favorably Mr. Hawley's bill for the protection of the postal rights of the inmates of insane asylums, with an amendment that all letters coming from insane asylums shall bear on the envelope the name of the asylum from which sent. An earnest advocate of the bill was Miss Packard, of Chicago, who said that many persons were held in insane asylums who were perfectly rational, and would be released if they had the facilities for communicating with their friends. She cited her own case as an illustration, she having been long detained, although she was entirely sane. She also made a statement that there were many inmates of insane asylums committed on account of religious enthusiasm who were perfectly sane, or became so after treatment in a very short time.

Small-Pox in Elizabeth.—The first genuine case of small-pox that has been reported in this city this winter was discovered on the 2d inst. The person was a German baker, and continued to deal out bread to customers after the disease had made its appearance.

The Use of the Mosquito.—Dr. Samuel W. Francis says, that this insect was created to drive man from malarial districts; and second, if man will not go, after the warning is given in humming accents, then the mosquito injects hypodermically a little liquid, which answers two purposes—firstly, to render the blood thin enough to be drawn up through its tube; and, secondly, in order to inject that which possesses the principles of *quinine*.

Charity Hospital.—Drs. F. N. Otis, Robert W. Taylor and W. H. Van Wyck have recently been appointed to the Visiting Board.

The Right Man in the Right Place.—The post of head apothecary to the Paris *Assistance Publique* has been obtained by a gentleman possessing the appropriate cognomen of *M. L'Extrait*.

Dr. S. Oakley Vanderpoel, Health Officer of the port, is delivering a series of lectures on Hygiene at the Bellevue Hospital Medical College.

Bronze Statue of a Philanthropist.—Mrs. Bartlett's statue of Dr. Wells, the discoverer of anæsthesia, is to be cast in bronze, in one piece, and set up at Hartford, just as it comes from the mould.

Dr. B. Fordyce Barker has been appointed Visiting Physician to the Woman's Hospital, *vice* Dr. J. Marion Sims resigned.

Prof. Frank H. Hamilton gave a reception at his house on Tuesday evening, to Dr. S. Oakley Vanderpoel, Health Officer, and Dr. John P. Gray, Medical Superintendent of the State Asylum, Utica. A large number of distinguished gentlemen were present, and altogether the affair was the most enjoyable one of the season.

Gottfried Mayer, M.D.—Died, January 4, 1875, Gottfried Mayer, M.D., aged 43 years, at 54 Meserole Ave., Brooklyn, of pleuro-pneumonia, after three days sickness.

Weekly Bulletin of Meetings of Societies.

Monday, January 18th.—Obstetrical Section of the Academy of Medicine; Medico-Chirurgical Society; N. Y. Society of Neurology and Electrology; Pathological Society of Brooklyn.

Tuesday, January 19th.—N. Y. Obstetrical Society; Dermatological Society; N.-W. Medical and Surgical Society; Medical Society of the County of Kings (annual meeting).

Thursday, January 21st.—N. Y. Academy of Medicine; Medical Association of the Eastern District of Brooklyn (election)

Friday, January 22d.—Medical Library and Journal Association; "A Historical Sketch of the Origin and Progress of the Medical Library and Journal Association of New York," Dr. John C. Peters.

Saturday, January 23d.—N. Y. Medical and Surgical Society (annual meeting)

Medical Department of Life Insurance.

ADDITIONAL THOUGHTS CONCERNING INEBRIETY AND LIFE INSURANCE.

By WILLIAM C. WEY, M.D.,

ELMIRA, NEW YORK.

In the examination of applicants for life insurance, one of the most difficult tasks of the physician is to determine if the person before him is addicted to the use of intoxicating liquor. The family history, summarized in the usual manner, imparts no information respecting an inherited tendency to inebriety, and the replies of the applicant to the question concerning his habits are meaningless and unsatisfactory. It becomes necessary, therefore, to protect life insurance companies from undue hazard, to learn if possible if an applicant is an occasional or an every-day drinker, and to what extent his indulgence has affected his health, and made its influence visible by such tests as reveal morbid phenomena to the careful scrutiny of the physician.

It may be said, as a rule, that the long-continued use of alcoholic liquors furnishes unmistakable signs of physical deterioration. That excessive indulgence impairs the mental and physical energies is painfully evident, even to the most casual observer. The protracted employment of stimulants, measured by a nice regard of physical needs and peculiarities, has not unfrequently been the means of prolonging life, and endowing feeble organizations with capacity to bear the burdens under which they would otherwise certainly be crushed. So jealous, however, is the public mind, and so watchful the medical profession of the power and extent of the alcohol habit, that the indulgence mentioned would arouse earnest reprobation as a hygienic measure on the one hand, or as a reason for continuing a lease of life, in which an insurance corporation might be disposed to derive prospective advantage on the other. According to the first estimate the license of a simple hygienic plan would be likely to degenerate into an uncontrollable habit. The second estimate, viewed in the cautious analytical manner, peculiar to business, involves so many hazards as to preclude the possibility of regarding the moderate use of alcohol as conducive to long life.

The fact is apparent to medical and lay observation, that risks in life insurance are constantly being taken, in which alcoholic indulgence, to a less or greater degree, proves a factor in the chances assumed by corporations, even though all ordinary care may be exercised to exclude the semblance of inebriety from participation in the contract. The personal habits of an applicant may not be known, much less suspected. His indulgence in the use of alcohol may be secret, though limited, which is the most subtle and dangerous form of the inebriate habit; or it may be social and occasional, and confined to a brotherhood of good-fellowship, whose acts are sedulously concealed from the outside world. Thus far, perhaps, the signs of inebriety, or, to express it more correctly, the indications that an inebriate habit is in process of formation, are not apparent. The mental powers are not implicated and the physical man preserves its normal integrity. Inebriety has not assisted its dominion by a single sign that can be recognized or understood, and yet its seeds are finding soil which sooner or later will insure development into an abundance of sorrowful, mental, moral, and corporeal results.

As there is a condition of the body preceding the formation of tubercle in the lung-tissue, known as the pre-tubercular stage of phthisis, whose phenomena are not known or appreciated, in the same way an inebriate tendency may imperceptibly germinate, when as yet its beginning and progress are not suspected by any appreciable indications. In this connection we discard the consideration of inherited inebriety and the family history, and regard the case as hypothetical merely; of course, no delicate act of the physician is capable of perceiving this condition, either as a study of disease, or as a means of preserving life insurance companies from the ulterior consequences of the inebriate state. The insurance of life accepts this contingency, just as it accepts undeveloped consumption or cancer, or such rare forms of disease as angina pectoris or dry gangrene.

The average number of men who die of consumption in every settled community is correctly known, and the laws by which that disease is transmitted, and the period in life at which its invasion is expected have been demonstrated with such accuracy as to prove of incalculable service to insurance companies, in the contemplation of hazard and loss, in the business of dealing with questions of expectancy of life. The same remark applies to many other forms of disease. It applies to insanity in its multiform exhibitions, and the statistics concerning this form of disease are regarded as reliable, simply for the reason that they have been furnished as the results of individual observation and experience, and grouped together in such a manner as to carry conviction of their credibility.

It is to be regretted that we cannot as fully believe the statistics so frequently published on the subject of drunkenness. We are aware of certain facts concerning the alarming prevalence of the alcohol habit. We see every day the consequences of inebriate indulgence, in the production of crime, poverty, vagrancy, disease and death. All are acquainted, even the children of our households, with the ordinary signs of intoxication, as exhibited in the streets, and we come to look upon such scenes with indifference, because of their constant repetition. Convinced that intemperance, directly and remotely, enters largely into the mortality of our people, we look in vain for confirmation of this belief in the published mortuary records. As an illustration of the unreliability of such statements, in connection with the subject of drunkenness, I have examined the death-tables for the city of Elmira, from June, 1867, when they were first given to the public through the efforts of the Academy of Medicine, a local organization, to the present time, with the following results: Two thousand and eighty deaths have occurred. "Delirium tremens" proved fatal in six cases, "inebriety" in two, "drunken apoplexy" in two, and "alcoholism" and "dipsomania" in one each—making a total of twelve deaths from all causes connected with drunkenness, or *one in one hundred and seventy-three.* Consumption, in the same time, destroyed 242, or 1 in 8.—typhoid fever 86, or 1 in 24. Accidents of all kinds 84, or 1 in 26. Cancer 52, or 1 in 39. Scarlet fever and disease of the heart, 45 each, or 1 in 46, and whooping-cough 39, or 1 in 53.

Here we see unmistakable proof of an endeavor on the part of medical attendants and friends to conceal the cause of death among inebriates. In a few cases only the truth was expressed, doubtless for the reason that no purpose could be subserved by withholding it, such as family affection, pride, charity, or other like consideration. A drunken pauper is usually consigned to the grave with little ceremony, and with no circumlocution of terms to express the manner of his departure. A drunken man, with friends and property, is carried to the tomb as the victim of congestion of the brain, gastric fever, chronic dyspepsia, Bright's disease, paralysis, epilepsy, dropsy, remittent fever, or enlarged liver. I have known certificates of death from these causes to be given in cases of chronic alcoholism, not because the specific affections cited had actually occurred as secondary features of the inebriate habit, but merely for the sake of diverting attention from the nature of the infirmity in question.

On the part of friends, and with the drunkard himself, a disposition is generally manifested to make light of the habit which has asserted its authority in the system. Hence the unwillingness to acknowledge a growing disposition to use spirituous liquors, in a person seeking life-insurance, and his positive denial of a fixed habit of indulgence. A delusion appears to accompany the formative stage of the inebriate habit, especially when acquired through solitary gratification, that no evidence of the immediate effects of indulgence, and no fear of the ultimate supremacy of the power of alcohol over mind and body is discoverable to the public, or the constant watchfulness of relatives and intimate friends. I doubt not, in many cases, this delusive impression may be strong enough, in an applicant for life-insurance, to prompt him in good faith to ignore the existence of a habit of drinking, or the least bearing in that direction.

The question recurs, by what means can the use of intoxicating liquor in a person seeking insurance on his life, be detected by a medical examiner? In an early period of the habit, save in those cases in which the slightest indulgence produces immediate sickness, and at the time of such sickness, it is impossible, by any known signs, to recognize the inebriate tendency of an individual. The formation of the habit does not involve the functions of the body in such a manner, or to such a degree, as to render them inharmonious or disturbing. At a more advanced grade of alcohol experience, when the use of spirits is not suspected in an individual, he may be conscious at times of certain gastric symptoms, insomnia or unusual muscular agitation. He fails to associate any or all of these symptoms with their actual cause, and applies to his physician for advice, or informs a medical examiner of their existence, as he would communicate the fact of occasional neuralgia or transient dizziness in his head. The diagnosis of inebriety is not established, and in the average manner of conducting medical examinations in life insurance; it is not surprising that its distinguishing features should be overlooked. An applicant for a policy of insurance commonly makes an unwilling confession to a medical officer, in language as brief and pointed as is consistent with furnishing proper replies to the questions propounded. He is not disposed to dwell at length on his personal history or to make much of his physical peculiarities. He stands in the light of a witness submitting to a cross-examination, and is careful to communicate only on the subjects to which his attention is directed. The convenient words *yes* and *no*, suggested in advance, perhaps, by an agent, while they are technically answers to questions, at the same time serve as means to withhold from the inquiry much information that should be furnished for a full understanding of the case. It is clearly the duty of examiners to trace out the significance of such marked and prominent symptoms as are revealed in the inspection of each case.

The occurrence of so-called indigestion may imply much or little, according to the manner in which it is interpreted. It may prove disease in itself, or functional disturbance, or a connecting link between a sympathizing organ and remote structural alteration. Painstaking investigation will rarely fail to disclose the true character of indigestion in a given case, provided opportunity is afforded to follow up the advantages suggested by the grouping of specific details, as they may be willingly or unwillingly obtained from an applicant. The precise nature of loss of sleep, or of muscular agitation, can be as readily ascertained.

It should be kept in mind, however, that the scope of medical examination in life insurance, is not as broad and comprehensive as the investigation of disease in ordinary practice. The applicant for insurance appears before the physician, fearful that some hidden disease may be brought to light, which he knows or does not know to have existence, or he approaches the scrutiny with an air of defiance, as if delivering a challenge to make the most of his physical condition. It has doubtless occurred in the practice of all examiners to discover evidence of disease of the heart, which the applicant would gladly have concealed. As little sensibility characterizes the discovery of such a fraud as is displayed by horsedealers when some imperfection is revealed in an animal, which at the time of sale was pronounced sound and reliable. An impression prevails, in a certain class of minds, that it is the duty of life insurance companies to ascertain the existence of disease, without prompting or assistance on the part of an applicant. This view is not confined to the ignorant alone. It is prompted by a sense of moral obliquity, which is ever quick to take advantage of any weak or equivocal feature in a contract, which would use the railway pass of a friend, and conveniently assume his name, and which, possessed of a habit of drinking, and aware of its consequences, would effect insurance on a life, which might be cut short through its gratification.

The advanced degrees of drunkenness imprint upon the mind and body such evidence of degeneracy, that the habit is at once betrayed in the form of recognizable disease. The life of a drunkard is not, under any circumstances, incurable. We are aware, nevertheless, that drunken lives are not unfrequently insured through concealment of the habit, a loose manner of examination or misinterpretation of symptoms which denote the inebriate condition. If the causative agency of drunkenness is not perceived in Bright's disease, enlargement of the liver, hydro-peritoneum, fatty liver, epilepsy, muscular tumor, gastritis, pyrosis, various dyspeptic disorders, decay of the generative function and mental decline, narrated in Flint's Practice as symptoms of alcoholism, the result is the same to a life insurance company if an applicant is rejected because of one or more of the subjective affections mentioned without tracing their dependence upon a remote, exciting cause. The fact, however, should be prominently set forth, that the consequences of inebriety in the production of disease are certain, widespread and oftentimes irremediable.

To the group of symptoms given by Dr. Flint should be added the "pains of alcoholism," so clearly described by the late Dr. Anstie, in his work on Neuralgia, and the following list, furnished in a lecture delivered by Dr. Wm. A. Hammond, before the New York Neurological Society, May 4, 1874. Dr. Hammond says:

"We are now prepared for the long list of diseases and disorders of the nervous system produced by the excessive use of alcohol. The catalogue is made up from my note-books, and is based on cases occurring in my private and hospital practice:

“OF THE BRAIN.

“Cerebral congestion.

“Cerebral hemorrhage with its consequences, apoplexy and paralysis.

“Meningeal hemorrhage.

“Cerebral thrombosis.

“Softening of the brain.

“Aphasia.

“Acute cerebral meningitis.

“Chronic cerebral meningitis.

“Abscess of the brain.

“Multiple cerebral sclerosis, one of those diseases of which tremor is a characteristic symptom.

“Every variety of insanity, including general paralysis.

“OF THE SPINAL CORD.

“Spinal congestion.

“Antero-lateral spinal sclerosis.

“Postero-spinal sclerosis (Locomotor ataxia).

“CEREBRO-SPINAL DISEASES.

“Epilepsy.

“Chorea.

“Multiple cerebro-spinal sclerosis, another of those affections characterized by tremor.

“Athetosis, a remarkable disease which I was the first to describe, and which is now well recognized both in this country and in Europe. The case on which my description was based was one in which the patient was in the habit of drinking sixty glasses of gin daily.

“OF THE NERVES.

“Anæsthesia.

“Paralysis agitans.

“Neuralgia in all situations.

“Neuritis.

“Neuro-sclerosis.

“It will be noticed that sclerosis or hardening is a condition of all parts of the nervous system which alcohol probably often produces. It is doubtless the result of the direct action of alcohol on the nervous tissue.

“In addition to being the exciting cause of many diseases of the nervous system, alcohol probably predisposes to various others in which no direct relation can be traced. Neither does its action stop here, for the descendants of persons addicted to the excessive use of alcohol are liable to various disorders of the nervous system, and there is some evidence to show that offspring generated during a fit of intoxication of either parent are often born idiotic.”

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MEDICAL SUPERVISION,

IN

DISTINCTION FROM MEDICAL SELECTION IN LIFE INSURANCE.*

By MOREAU MORRIS, M.D.

REPORT.

It is an axiom that careful medical selection is one of the main elements of successful life insurance business.

But, although admitting its truth, it must be said, that, as the term “medical selection” is usually understood and applied by life insurance companies, it falls far short of fulfilling the conditions and accomplishing the results naturally expected from what is supposed to be its searching exactness, and is, comparatively, of but little real value.

This is by no means the fault of medical examiners, than whom there probably do not exist more careful, conscientious, painstaking men in any profession or walk of life.

But the great defect lies in the system or method of securing such information as is necessary to form the basis of a proper medical selection, and thereby to judge of the character of the risk.

The question of how to secure the best and most careful medical selection, has long been and still is apparently one of the most difficult to solve. It is the perplexing problem with nearly every life insurance company at the present day, and well it may be, in view of the rapidly increasing mortality rates in many of the older companies, and in the younger ones also—of the old plan.

As fond parents view with increasing alarm the rapid decease of child after child of their household from some mysterious fatal disease, they naturally look about for superior medical skill to stay, if possible, the effects of the pestilence. Experienced and wise doctors are summoned to the bedside, and with grave, thoughtful countenances, they shake their heads and say, too late! too late! The disease has sown its seed, its ravages are telling with fatal effect; we cannot suggest better remedies, and unless transfusion of new blood may possibly save, death remains only a question of time.

The question of proper medical selection is indeed one of great significance; it is the corner-stone of the edifice of life insurance; its proper position in that edifice should be well considered; its texture and strength well tested and understood; and when once firmly fixed upon a well-grounded foundation it will remain sound and able to sustain the superstructure, of which it forms so important a part.

But with all due deference to experience, whose teachings often fail to be appreciated, it seems to be a patent fact that the solution of this problem must be sought for in other directions, than simply by a change of men, or by more exacting medical qualifications.

No physical exploration can estimate an applicant's probable life expectation; no medical skill nor experience in detecting present disease or impairment can determine the presence of subtle inherited tendencies to disease that may have remained dormant through several generations, but which only await certain unknown influences to become developed in the applicant. True, as a detective discovers a trace of the culprit by some slight cue, so the medical examiner may detect that which has been concealed or unwittingly omitted in an applicant's preliminary statement, and thereby, perchance, save the company from a loss.

Hitherto, so far as ascertained, with one single exception, notwithstanding the acknowledged indispensability of competent medical aid, the medical department of life insurance has held only a position of secondary importance in the business. Common sense would seem to dictate that a business which depends for its success so directly upon a proper estimate of life's expectation in every instance, should have within its executive department medical skill equal, if not superior, to that in its actuarial or financial branches, and such as only *special* medical knowledge and training can afford. It may not be that every medical man is competent for the business; for as in every other business or profession, there needs to be some special adaptation of person and knowledge in order to diagnose, classify and adjust the integral parts that control life's probabilities.

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* An extract from a quarterly report to the directors of a life insurance company.

The laws of inheritance, as it regards health and disease, long and short life, etc., need to be well understood, closely studied, compared and applied. The elements of longevity, as well as of vitality, must necessarily enter into such accounts, and all the forces and influences that control and affect life and health must be considered and well weighed in the problem of estimating the probable life expectation in any given instance.

Human life is subject to so many contingencies; its continuance depends upon so many factors, which only expert medical knowledge can determine, and which cannot be determined by actuarial science, that, so long as the business depends, as it largely does at the present day, upon such uncertainties as are actuarial estimates, based upon general average mortality statistics, there need be no wonder that it cannot be conducted with permanent safety and success.

The application of special medical supervision is the only true safeguard. By it only can the estimation of the probable viability of individual risks be properly and safely given.

If all mankind indiscriminately could be insured, then might the calculation by average mortality risks be approximately correct, and assurance guaranteed by a company, even though with great *inequity* to the naturally long-lived; but as only a small proportion ever become insured, the risk is increased a thousandfold by this erroneous basis.

Next to the fundamental error of conducting this business upon the "general average plan," has been that of keeping its medical department in a subordinate position. That profession has not failed to recognize its true position, but the greed of speculation has so far succeeded in keeping it quiet. As a class, medical men are not practical business managers; their life studies lead them to shun the more busy marts, to hold out the helping hand, to succor the weak, to protect the infirm, to sustain the depressed and desponding, and they are ever pushed to the wall when they come in contact with keen, sharp, unscrupulous speculation. But as he who lords it over his fellows in competitive business pursuits, or in the wild excitement of stock gambling, will certainly some day beseechingly call for his more humble and long-suffering medical adviser for help from the effects of an overtaxed physical organization, so even now does the business of life insurance call upon its best friend for aid and counsel in its trembling, threatened apoplectic condition.

That the medical department needs to be reorganized there is no question. But its reorganization will avail nothing, comparatively, so long as the present methods of computing premiums and insuring lives upon the "general average" plan is persisted in. There must be a radical change in this respect or no equitable premium rate can be fixed.

Every means should be diligently sought and applied in the conduct of the business that truth, honor, and equity demand, and when they are discovered and have been proved, 'twere worse than robbery to neglect their use.

In the first place, in every well organized company there should be a responsible, specially prepared, medical superior, holding equal authority and responsibility with any other of the executive officers. Upon his and their judgment should the proper premium rate be fixed upon each individual applicant according as *his own* individual characteristics may indicate *his* life's expectation; *his* vitality and longevity, to wit, *his* viability.

But, it may be asked, how is this single fact to be arrived at, as men differ so much in kind and quality? Certainly not by any general average of thousands upon thousands of the same age; but by a close analyzation of all the facts and factors that pertain to this individual. There is the ancestral record; by it may be judged the average mortality age of his individual kind. He has inherited certain life processes which fix a term to his existence; he cannot live beyond them, he may shorten them. If he has done it, how and by what means? By dissipation, contracting incurable disease, overtasking his vital energies, dwelling in insalubrious districts, violating good sanitary laws, recklessness, useless exposure, or accident? Each and all of these elements of impairment must be weighed and judged as to their relative or combined influence in shortening the natural life term of the applicant under observation.

The preliminary step, then, should be to ascertain as far as it is possible from the ancestral family record of each person the ages of his living relatives, the ages of all who have died, and of what diseases they died. This record should include the grand-parents always, and as many of the great grand-parents as any record can show. It is important also that these statistics should be clearly obtained on both paternal and maternal branches—such as uncles and aunts, brothers and sisters—giving their ages and conditions of health if living; if dead, age at death and cause of decease. So much of the details of the physical characteristics of each of those persons as it may be possible to get should also be recorded.

We have now presented before us a series of lives through which and with which this one has many characteristics in common; he is after, and one of, that kind. Whatever of life is inheritable is here shown; whatever of inheritable disease he may or will have, if there has been any, will almost certainly appear somewhere in this record; and if there has been none, have we not the fact almost indubitably established that in him there will be none; therefore there is very, very little risk in that direction.

The next question in order is, naturally, the special constitutional characteristics of the individual, whereby we may judge from which branch of the parental house he inherits his strongest viability peculiarities, etc. These, in detail, include height, weight, equipoise, and both a general and minute descriptive picture of his outer person.

Habits, vocation, residence, intelligence, past and present health, and other incidental facts, such as army exposure, various residences that he may have had and their local diseases; injuries, whether permanent or trivial, etc., the details of which for want of time are here omitted.

To all these details which fully illustrate to a critical eye the life picture, as well as the inherent tendencies, are added a general description of the person, giving his biometrical measures of the head, trunk, limbs, all of which form a complete record of the party. One accustomed to the analysis and synthesis of these elements of viability can readily form a very accurate judgment as to the probability of any person's life expectation.

In view of these considerations, no right minded and true man can dispute the fact, which his own intuition teaches him, that he has within himself potentialities, governed by certain fixed laws, which give a period to his existence; that in some it is naturally shorter and in others naturally longer than the general average of all mankind. True, this vital principle governing his longevity may be so interfered with as to deprive him of its full influence, or the accidents of life may suddenly cut it short. The laws of longevity being fixed, it is not a difficult matter, by the proper application of those laws, to estimate very closely the probable natural life expectation of any individual.

The facts to which we here refer show that there is something behind and beyond the present physical condition which governs and regulates the viability, and which must be sought for in other directions than by listening to the heart and lungs, feeling the pulse, taking the measurements of the height, ascertaining the weight of the body, etc. Men have inherited vitalities and diseases which are constitutional; have habits which affect, vocations which modify, residencies which promote or destroy health; they may be robust or feeble; they have idiosyncrasies inherited or not, instincts and intuitions, all of which are indicated by signs and manifestations hung out upon the outer wall for our reading.

The further problem then becomes reduced to the amount of impairment that may have supervened upon the proposed life, the effect of habits, or the accidental danger to which it may be subjected.

It is the perfection of detail following the true principles of life-governing circumstances, that alone can produce signal success in this business. It is the application of the principles of biometry with reference to natural longevity, and of those of medical science with reference to unnatural impairments, and of the experience of statistical facts to life's accidents, by the medical expert, that constitutes the working plan of all true life insurance, in the estimation of risks.

The following practical illustrations will perhaps more clearly exhibit the true value and status of expert medical supervision, in estimating the probable life expectation by which to fix a premium rate in any given case submitted for insurance.

In order not to confuse the mind with details, it will be perhaps sufficient that two extremes, exhibiting types of the best and the poorest cases insurable in ordinary average premium companies, should be used. Between these there exist every grade whose premium rate needs to be adjusted in accordance with the expectation of the person, and which cannot—in justice either to the company, its policy-holders, or the applicant—be adjusted by any general average table.

"Like begets like," and to calculate that the longevity of a class of men will be greater than the average of its ancestors is erroneous and unsafe. Persons descended from short-lived ancestry cannot beget long-lived children, and persons descended from long-lived healthy ancestors are unquestionably entitled to the benefits of this ancestral inheritance which—if not impaired by disease, physical defect, or excesses—most assuredly should place them in the superior grades, and entitle them to the lowest premiums.

F. D. S.—Age 33—Married.

Ancestral record :

Paternal—Grandfather died at 90, old age; grandmother died at 92, old age. Maternal—Grandfather died at 85, old age; grandmother died at 80, old age. Father living at 73. Mother living at 70. Paternal—Uncles, 3, all living, aged 62 to 70. Aunts, 1, dead; age, don't know. Maternal—Uncles, 3, living, aged 60 to 70; aunts, 2, living, aged 60 to 66. Brothers, none. Sisters, 4 living, aged 33 to 40. American. White. Good proportions. Compact. Height, 5 ft. 9 in. Weight, 175 lbs. *Head*, large, measures 5¾ in. through temporal fossæ; 5 in. from nasofrontal articulation to orifice of ear. *Nose*, large, long, expanded nostrils. *Lips*, long, red. *Trunk*, large, long, measures 25 in. *Shoulders*, square. *Chest*, expansion 3 in., well developed, round, long. *Abdomen*, medium round; girth, 35 in. *Hips*, broad. *Back*, straight. *Limbs*, medium size; muscles, hard. *Hair*, brown, abundant, coarse. *Beard*, lighter, coarser. *Eyes*, hazel, straight. *Complexion*, dark, clear. *Features*, large, regular. *Teeth*, sound. *Neck*, medium. Has had diseases incident to childhood only. Vaccinated well. Vocation, farmer. Born and always lived in Maine. *Habits*, correct and temperate, and always been so; never drank any distilled or fermented liquors; is a free liver; bathes weekly; gives attention to ventilation, especially of sleeping room; rises and retires regularly, early; meals, regular; uses tea and coffee; never uses tobacco in any form. Health is now perfect.

Again.— J. J. A.—Age 21—Unmarried.

Presenting nearly the same personal characteristics as F. D. S., except height 5 ft. 10½ in., weight 163 lbs., having same head measurements, length and size of trunk, and in perfect health, gives the following

Ancestral record :

Great grandparents were all of them over 90 years of age at death. Paternal—Grandfather living now, aged 70; grandmother living now, aged 70. Maternal—Grandfather living now, aged 74; father living, age 47; grandmother living now, aged 74; mother living, age 47. No uncles or aunts on paternal side. Maternal—Uncles, 6, all living, ages from 25 to 47; aunts, 1 living, age 38. Brothers—2, aged 12, 21. Sisters—1, aged 23.

In this case it may be observed there has not been a death in the three generations since the great great grandparents, all of whom were over 90 years of age at death; and in the first instance given it will also be noted that there was but one death since the grandparents, none of whom died under 80 years of age.

In view of such records is it not a violation of common sense, and all sense of justice, to charge a premium to either one of these parties upon the basis of the average duration of all human life? viz., at their actual age. Are they not entitled to a rebate on account of superior longevity, habits, physique, health? Most unquestionably. We will now present another illustration.

F. E. P.—Age 24—Married.

Ancestral record :

Parental—Grandfather died 83, gravel; grandmother died 50, tumor. Maternal—Grandfather living, 73, health good; grandmother living, 70, health good. Father living, 52; mother living, 48. Paternal—Uncles, 4 living, 38 to 65; 2 dead, 3, 55. Aunts, 1 living, 40; 4 dead, 28 to 60. Maternal—Uncles, 3 living, 35 to 40; 1 dead, 20, fits; aunts, 3 living, 28 to 40. Brothers—4 living, 11 to 19. Sisters—1 living, 9; 1 dead, 11, dropsy. American. Height 5 ft. 6 in. Weight 134 lbs. *Head* measures 5⅛ in., 4⅜in. *Nose*, medium. *Lips*, long, red. *Trunk*, medium long, measures 24 in. *Shoulders*, square. *Chest*, well developed, expansion 3 in. *Abdomen*, medium round; girth, 32 in. *Hips*, medium. *Back*, straight. *Limbs*, medium; muscles, hard. *Hair*, brown, curly. *Beard*, lighter, finer. *Eyes*, hazel, straight. *Complexion*, dark, clear. *Features*, medium, regular. *Teeth*, sound. Has had other diseases besides those of childhood. Vaccinated well. *Vocation*, meat market. Born in Maine, always lived there. *Habits*, correct and temperate; uses ale, has been intoxicated seldom, two years ago; attends to ventilation of sleeping room; rises and retires early; active; uses tea and coffee, weak; no tobacco in any form. *Health*, good; had some rush of blood to head years ago, none for three years; some kinds of food produce inconvenience, fresh fish; has piles, bilious colic once or twice a year; has chronic rheumatism at times; otherwise in good health.

We have here an example of fair ancestry, but with some constitutional impairment which crops out in his statements with regard to his own condition of health. In the account as posted up against him we find questionable points against ancestry, constitution, habits, vocation, health. These indicate the impairments natural and acquired, and all without a medical examination.

Is it necessary to go farther? Cannot a medical or even a non-medical supervision decide with pretty accurate judgment that the risk in this case is almost dollar for dollar.

Other, though dissimilar cases, showing specially the tendency of ancestral inheritance.

E. C. G.—Age 34—Married.

Ancestral record:

Paternal—Grandfather died 80, old age; grandmother died 43, stoppage. Maternal—Grandfather died 50, consumption; grandmother died, don't know age or cause; father living, 65, in good health; mother dead, 45, stoppage. Paternal—Uncles, 4 living, 41 to 63; aunts, 2 living, 60 and 30. Maternal—Uncles, 1 living, 55; 3 dead, 38—at sea, 50—consumption, 60—don't know cause; aunts, 1 living, 55; 2 dead, 45—consumption, 35—result of a cold; brothers, 2 living, 38; 2 dead, 14—hip disease, 6 months—don't know; sisters, 1 dead, 21—consumption; 6 living, 28 to 50. American. Height, 5 ft. 11½ in. Weight, 175 lbs. *Head*, measures 5⅝, 5. *Nose*, medium. *Lips*, middling long, thick, red. *Trunk*, medium long, measures 24¾. *Shoulders*, sloping. *Chest*, medium; expansion 3 in. *Abdomen*, medium broad; girth, 35½. *Hips*, medium. *Back*, straight. *Hair*, Saxon, light, middling fine. *Beard*, darker. *Eyes*, light blue, straight. *Complexion*, fair, clear. *Features*, medium, regular. *Teeth*, sound. Has had fever and ague. Served in army four years. *Vocation*, brickmaker. *Habits*, correct and temperate; uses tea and coffee; smokes. *Health*, good.

W. W. R.—age 25—Married.

Ancestral record.

Paternal—Grandfather died at 70, don't know cause; grandmother died at 70, don't know cause. Maternal—Grandfather died at 80, old age; grandmother died at 40, consumption; father died at 58, liver complaint; mother living at 60. Paternal—Uncles, 4 living, aged 50 to 60; 2 dead, 60—liver complaint, 60—don't know cause; aunts, none. Maternal—Uncles, 1 dead, aged 45, fatty degeneration of heart; aunts, 1 living, aged 70; 3 dead, consumption, aged 30 each; brothers, 3 living, 24 to 40. Sisters, 2 living, 24, 30; 1 dead (infant). American. Height 5 ft. 8 in. Weight, 140 lbs. *Head* measures 5½ in., 4¾ in. *Nose*, medium. *Lips*, short, red. *Teeth*, good. *Trunk*, long, 25½ in.; measures 37½ in.; expansion 3½ in. *Chest*, well developed, broad. *Abdomen*, 32 in. *Back*, straight. *Muscles*, hard. *Fingers*, well webbed. *Foot*, arched. *Nails*, slightly incurvated. *Hair*, brown, fine, abundant. *Beard*, lighter. *Eyes*, light blue. *Complexion*, fair. *Diseases*, incidental to childhood only. *Habits*, correct, temperate, uses no spirits nor tobacco. *Vocation*, manufacturer of furniture. *Born*, and always lived in Maine. Insured in two life companies.

Remark by Medical Examiner:—This man has a splendid chest development, and no present indication of pulmonary diathesis.

These two instances exhibit so great a tendency to inheritable or transmissible disease, as appears from the ancestral record, that it would be entirely unsafe for any company to insure them at actual age, and therefore they should be charged a premium in accordance with the unusual risk as estimated by the probably short expectation of life in each case. Yet one of them says he is insured in two life companies. Good for him, but bad for the companies.

It must not be understood that the ancestral record by itself is to be considered as the essential element in estimating a person's life expectation. It simply exhibits the potential inheritable vitality. It may or may not have descended to the proponent. But it is one of the factors by which the individual constitutional characteristics are to be elucidated in the further study of the personal characteristics of the individual's constitution.

The complete study of an individual's viability, or probable length of life, requires a further consideration.

Whether he has really inherited those constitutional characteristics inferrible from his ancestry; whether, if possessed naturally, they have been continued, and whether they probably will be continued in him or not.

To judge of these facts requires a complete knowledge of his personal peculiarities, his habits, vocation, residence, intelligence, instincts, past and present health, all of which must be particularly described to form a complete basis for a proper estimation of his own personal longevity.

In the foregoing I have considered only those conditions antecedent to and independent of the medical examination proper. This examination presents, when carefully filled out upon a proper blank, an almost complete medical and physiological history of the applicant; it also affords an independent statement of facts, with which the interested statements of the applicant may be compared, and any error, intentional misrepresentation or falsification at once detected.

This blank may be filled up by any respectable physician, and, when considered in connection with all other information afforded by the applicant, and by his family physician's and friend's certificates properly filled out, places in the hands of the chief medical officer such a combination of facts in regard to the party's life history, his antecedent inheritance respecting longevity and disease, etc., as afford an almost unerring basis upon which to form a judgment as to the true character of the proposed risk.

What I wish to explain more particularly is that the applicant's blank, carefully filled out in proper form, is quite as necessary, and, in fact, even more useful, than the medical examiner's blank filled out by him.

They are both pre-requisite to a perfect understanding of an applicant's viability, and the proper rating of the risk; but it is in the applicant's blank, rather than the medical, as usually found, that the greatest improvement is needed.

Indeed the present medical blank of most of the companies would do very well for its purpose, but the applicant's blank, as we usually see it, is very deficient in many important particulars.

The medical blank should be intended as only correlative to the applicant's blank, as indeed it must be. It can afford only such additional "expert" knowledge of facts and conditions as an applicant might overlook or be ignorant of, in regard to his physical or pathological characteristics.

The chief prognostics of the viability of the *healthy* person must be found and can be found only in his own part of this application. The description of his ancestry and of himself to a great extent can only be furnished by him if it reaches the company through the medical blank; it is a repetition of some of the facts in his blank for the purpose of comparison at the home office, while it should be fully and in every possible way impressed upon the applicant that *he* must be honest in *his* statements and replies, and in good faith answer all the questions put.

It is found in practical experience that the medical blank is corrected by the suggestions of the applicant's blank quite as often, nay oftener, than the latter is corrected by any information gained from the former. It is also found better, as a rule, to have all that can be stated by the applicant put down by him on *his* blank, thus fixing the responsibility for good faith upon *him* as far as possible; and this also saves the time of the medical examiner. Indeed, if the applicant's blank is properly drawn and filled out, giving all the details that the applicant can give about himself, it is seldom that anything can be added by the medical examiner in that respect.

MEDICAL SELECTIONS.

In discussing questions involving the healthy progress and ultimate safety of the life insurance business, we are often called upon to deal with subjects in themselves regarded as distinct and separate from each other. But when applied to the business, they become inseparably connected—an unbroken chain, without which cause and effect would have no binding links. We must have safe investments, a safe rate of interest, a safe standard of mortality, and a safe standard of health. None of these can be neglected, and the desired object be attained. Nor is any one more important than a safe standard of health, or what is usually called safe, or sound risks.

To keep these risks up to this standard is the professed object of medical selections. Perhaps there is no point of danger to which companies are more liable to be exposed than this. The character of securities may be ascertained from disinterested parties, the rate of interest may be determined by outside considerations; the rate of mortality by past experience, and the standard of health by the exercises of sound judgment. Here there is no one to conceal facts which no one else knows. But in medical selections the case is different. The applicant for insurance may have disease within him which no medical skill can detect. He may be aware of this fact and use it to the disadvantage of the company and to the injury of all its members. That this has been done in many instances no one can doubt, and that it will continue to be done in the future there is reason to fear.

If all such cases could be understood when application for insurance was made and an extra charge equal to the extra risk was assessed, no one would suffer; the extra charges would be equal to the extra losses. But as this cannot be done in all cases nothing but the greatest care in medical selection is left for a company to depend upon. That such care is not always exercised seems to be evident from the high rate of mortality lately experienced by some companies; or if it has been, they have experienced fluctuations in the rate of mortality amongst sound lives, such as would render all former assumptions and calculations worthless. But the correctness of these assumptions and calculations has been too well established to admit this conclusion. These remarks have the greater force when we remember the average duration of life policies, unless there is a great disparity between the number of sound and unsound risks whose insurance is forfeited. That there is any disparity is yet a mooted question.

But let us look at the advantages of medical selection. What is their magnitude? How far down the history of companies do they reach, or at what point do they vanish? These are questions which have attracted considerable attention and some discussion. But not till recently have we come into possession of facts which lead to any thing much better than mere conjectures. And however near the truth these conjectures may have been, they needed confirmation, such as actual experience furnishes before they could be received as trustworthy by prudent men.

In the year 1869, the Institute of Actuaries published the mortality experience of twenty life companies doing business in England and Scotland. In that experience, the advantages of medical selections end with the fifth year after insurance is made. Here the number of risks upon which observations were made is quite large enough to give reliable results, and we might accept them as being entirely trustworthy in the absence of additional facts. But fortunately, we are put in possession of other facts which show that the conclusions reached by the Institute of Actuaries were well founded.

These facts are found in the late report on the Mortality Experience of the Mutual Benefit Life Insurance Company of New Jersey in Table No. IV., and chart marked B. This report shows that the advantages of medical selection are about the same in this as in other countries. We have already referred to this matter in our former review of this valuable document; but the information it furnishes on our present subject is so clear and satisfactory that we take the liberty of alluding to it once more.

In the chart referred to, it will be seen by the dark zig-zag line which represents the company's actual experience, that it halts upon the upright line on the left, a little above the horizontal line marked 60. A similar line at the top marked 100, represents the American experience. Here then the advantage of medical examination for the first year is about 38 per cent. of the American Experience. In the second year, this same line falls upon the second upright line at the point marked 70, consequently the advantage is 30 per cent. of the American Experience, and so on to the end of the fifth year. In the sixth year it passes above the red line in the chart, which marks the average mortality experienced by the company.

Now turn to Table No. IV., and we see that the average mortality for the first five years, after insuring, is .786 of the American Experience; but the average mortality for the whole 28 years of the company's experience is .862 of the American Experience. The difference between .862 and .786 is .076. But the average mortality in the 23 years which follows the first five years is .946 + of the American Experience. Now subtracting from this rate for 23 years (.946 +) the average rate (.786) for the first five years, we have .160.

This .160 is the mathematical expression for the advantages of medical selection according to the experience in the above report.

If we are correct in these calculations, assuming that the calculations in the report are correct, the advantage of medical selection is about 17 per cent. of the mortality experienced after the effects of selection disappear. We are now speaking of the advantages in regard to the number of deaths. Of course, the amount of death claims will be formidable in proportion to the number of deaths, not, however, without slight deviations, the same in extent as in the years which follow.

The advantages we have found are to a life company something like a man getting a good start on his day's journey. He travels throughout the day with less anxiety and annoyances than if he had made a bad start. A good start may compensate for hindrances on the way. And so it is with life companies. They will find that a good start with new risks secures advantages which they can ill afford to neglect. The journey is too long to start with bad freight, or that of an indifferent quality. It must be good, or the tariff must be raised.

Our object at present is not to advance new arguments in favor of medical selection; but to enforce such as have often been presented to the public. The arguments repeatedly made are so forcible—accumulating facts bearing upon the subject are so numerous and weighty—that they need only be kept before the public to secure what is needed. Those who have the care of this branch of the business—under whose medical skill the applicant for insurance must pass before policies of insurance are issued—must feel the responsibility which rests upon them. They must feel that to a certain extent the success of a life company is in their hands, and the protection of widows and orphan children is safe or in jeopardy by their fidelity in the discharge of their duties.—*The Spectator.*

Miscellaneous.

HERBERT SPENCER'S THEORY OF MARRIED LONGEVITY.—In his recently published *Study of Sociology*, Herbert Spencer assails a theory that has long been current in life insurance. That married life is favorable to longevity has generally been regarded as satisfactorily proved by the numerous statistics showing, almost without exception, a greater longevity on the part of the married. When the ratio of deaths in the two classes stand as ten to four and even twenty to four, there would appear to be little room for doubt. But to this astute social scientist the evidence, strong as it seems, furnishes no warrant for the current belief. He regards the case as a substitution of cause for effect. In other words, greater longevity is not the consequence of marriage; on the contrary, marriages are clearly traceable to influences favoring longevity. The principles of natural selection work so strongly in deciding between the benedicts and the bachelors, that the long livers are drawn to the former and short livers to the latter.

Marriage, he holds, is regulated by ability to meet its responsibilities. The qualities which give the advantage here are intellectual and bodily vigor, prudence, and self-control; these, too, are the qualities which determine a prolonged life or a premature death. An even more direct relation is to be found in the instincts which lead most strongly to marriage. The reproductive instincts and emotions are strong in proportion as the surplus vital energy is great, and this in turn implies an organization likely to last. "So that, in fact, the superiority of physique, which is accompanied by strength of the instincts and emotions causing marriage, is a superiority of physique also conducive to longevity." Another influence tells in the same direction. Marriage is determined by the preference of women as well as the desires of men, and other things being equal, women are attracted towards men of physical and intellectual power, refusing the malformed, diseased, and ill-developed types.

In the operation of these three elements Mr. Spencer finds all that is needed to account for the striking difference of longevity between the classes, and declares that "the figures given afford no proof that marriage and longevity are cause and consequence; but they simply verify the inference which might be drawn *à priori*, that marriage and longevity are concomitant results of the same cause."

It is impossible to deny the principle of natural selection here laid down by Mr. Spencer, a powerful influence on the relative longevity of the classes, and if either theory must be accepted to the exclusion of the other, this one may perhaps have the better title. Every person conversant with sociological facts knows that these selective forces do exist and operate with vigor, while the statistics themselves furnish the strongest evidence of advantages resulting from a married life. But it is more reasonable to suppose that the truth lies between the two, and that in carrying out the legitimate functions and satisfying the natural instincts of life the effect reacts upon the cause, and influences favorable to longevity are intensified in their action. The disparity which exists between the relative mortality at different ages, and the greater diversity during the period when marriage may be supposed to exert its strongest influence, certainly favors this view.

The question itself is an important one in its bearings on the statistics of other classes as well as this one. Like differences are shown to accompany occupation, social standing, and residence in foreign climes. It is important to know how far these differences are attributable to the circumstances, and how far the conditions of life may be due to personal differences more or less favorable to longevity. It is certainly true that the intellectually strong gravitate towards a professional career with its attendant length of life, that the physically sturdy and intellectually unimpassioned gravitate to the farm, that the moral and self-denying seek the ministry, and the nervous and excitable characters find their congenial home in the bustling and hotly contested walks of life.

A judgment of the individual, based on his employment or position, must be modified to meet the circumstances that have placed him there. Southern climes have been the favorite resort of invalids suffering from pulmonary complaints, and the statistics of a southern residence would naturally be unfavorable, but they would not apply with equal force to a sojourn for business or pleasure. The law of its life applies equally to a class as a whole, whether the classification is due to the law or the law to the classification. But if, as in life insurance, the unsound lives are first weeded out, the influence of the law is limited to its causal relation, and the inquiry as to whether Mr. Spencer's cart is before the horse, or the horse before the cart, has no considerable practical importance.—*Insurance Monitor.*

Original Communications.

SOME REMARKS ON DIPHTHERIA.

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Recent experience as to diphtheria, and the mortality to which it has attained during more than a year of epidemic prevalence in New York City, may well excite our profession to increased thoroughness in the study of it. Each disease has its science, and the science of any one disease means the accurate classification of its facts by accurate observers, and the deduction therefrom of correct principles of treatment. What we are most needing in diphtheria is that every observer should give us accurate, truthful clinical observation, and then that such as are most competent should collate, test, and arrange the facts so as to give us deductions founded thereupon. In this article all we propose to do is the former, and then to add a few thoughts on the various hypotheses of diphtheria.

I have met the disease, through a period of years, in four epidemics, have twice had it in my own family, and while not having the multiplicity of cases seen in a public institution, have been able to study it in the distinct localities of a village and country district. To detail the varying phenomena of each case, or of each epidemic, would take a volume rather than an essay. I can only give such generalization as is the result of special observation, to aid others in comparing their own experience, and myself to gain knowledge by such comparison. I saw my first defined case of diphtheria in———. It was a young lady of eighteen, whom the family had treated for tonsillitis. I found her with the membrane over the entire fauces, with parotid gland greatly swollen, and with a failing pulse. She had not yet taken to her bed, but did that night, and died in about thirty-six hours. There were three in family, and she was the only young person. A few days after, one of the other members had a diphtheritic deposit on one tonsil, which I saw at its beginning, and cauterized, and there was but little subsequent trouble. A week after, a young man, also the only young person home in a family of three, had a swollen throat for four days, went to bed earlier than usual one night and died at three o'clock the next morning. Although not seen by any physician, a careful history satisfied me of its identity with the former case. These, so far as I know, were the first cases in the county, and we refer to them because of this one item. A colored woman fleeing from a family on Staten Island in which three or more children had died of the "throat distemper" prevalent there, came to the house of the first-named patient and spent an hour the next day, combing and crimping her hair for her. After being there a week she made her only other visit to the house of this other person, over a mile distant. Within three weeks both these persons died of diphtheria.

There were no immediate or consecutive cases, but within the next year I had occasion frequently to see the disease in that township, generally losing my first patient whenever called, and the rest recovering. It would break out in families detached from each other and without any known cause. The trouble with first cases was that the family did not recognize it until the neck was much swollen, and then too often the poison had so infiltrated the lymphatic system as to be beyond sufficient dilution or neutralization. Now and then such a case recovered, but this was the exception. It has happened to me only in five or six instances to lose cases treated from the outset. A second epidemic, not so extensive, but equally severe, occurred four years later. Now and then a parent was attacked, and in the case of one mother it was a severe struggle, followed by paralysis of throat, which for a time gave nasal tone to the voice, but resulted in a final restoration. The third epidemic was milder in its type.

Of cases occurring just now, the first returned from a visit to New York, had sore throat soon after, and was seen by me one week after first symptoms. The swelling was slighter than usual; the diphtheritic membrane not extensive in the throat, but croupous symptoms prominent. The patient probably died from the extension of the disease through the bronchial tubes. The other members of the family were attacked, but only one at all severely. This one early showed the same complication as the first, and I varied treatment by using ipecac and senega, with advantage. The cases we have now are less malignant, and not so inclined to glandular swelling. There is such a prevalent tendency to sore throats as to make it a little difficult to diagnose between the various forms, and very easy for prospecting practitioners to sum up manifold cases. I have seen tonsillitis, with pus discharge, diphtheria, and an "acne"-like condition of tonsil occurring in the same family within ten days of each other. Some of these cases, in which five or six whitish acuminated points form on the reddened tonsil, spread out and run into a genuine diphtheria. How far this form of sore throat is diphtheritic in its start, and bears relation to malignant diphtheria, as scarlatina does to scarlet fever, is a matter needing to be carefully studied.

The first thing to be done with a diphtheritic child is to put it to bed. This helps to isolate it from the other children, and is also important for treatment. The child is often so much inclined to sit up, that the physician needs to be explicit on this point. The short early stage of diphtheria often has an inflammatory type of fever, and it will not do too rapidly to tumble in nutriments, stimulants, and tonics. The bowels, unless relaxed, often need to be unloaded by a mild laxative. As we are to rely much upon good digestion and ready assimilation, it is well to have the prima viæ comfortably clear. Counter-irritation is early indicated. Not such as is destructive, but that by salt-pork rubbed with mustard in the country, or some elegant liniment, such as the colorless iodine liniment when convenient. The neck must not be bound up in three or four thicknesses of flannel, but a single band reaching up over the head, instead of around the neck, is well. If the glands are swollen there should be frequent applications of the liniment, and oil-silk inside the flannel-band.

The throat of course has been carefully examined. Some good doctors have much to learn about the best way of examining the throat of a child. It is not difficult to get a thorough survey by practice, and to teach most children to make a full showing. Let the child protrude the tongue as far as possible, then open the mouth very wide and give a cough or a gasp; after trying two or three times they will succeed, and if not they may then drop the tongue against the teeth, and will more readily submit to a quiet, slow depression of the tongue, not too far back, with a spoon or small spatula. It is well to get a thorough view of all the cavity. If we can see a throat when the diphtheritic deposit is circumscribed, we always prefer to give the deposit and the parts about it a thorough pencilling with nitrate of silver in solution. It is both sedative and caustic. I am so sure that many a time I have limited the disease thereby, that in this class of cases we cannot dispense with it. I do not like to do it, and have often had my face speckled from the saliva when just finishing, but nevertheless believe in its local value. This is quite different from an advocacy of promiscuous swabbing. We are quite aware that a large number of practitioners are for making light of local treatment, or resort only to tannin and glycerine, and the like. But because this is a constitutional disease, that is no reason for neglect of local measures. Many an ulcer and many a skin disease, although constitutional, calls also for local treatment. Watson and others have, in other forms of throat trouble, recognized the fact that the local secretion is absorbed and reinfects the system. Whatever may be the hypothesis as to the local deposit, whether infusorial, fungoid, or neither, it had better be looked after as a very unhealthy presence. Even frequent rinsing of the mouth, and an avoidance of swallowing often is worthy of attention. I accidentally had a bottle of Squibb's carbolic acid solution (No. 3) frozen, and found the ice of this valuable for occasional local use in the throat. It is easily managed, and often quite grateful to the patient. Several of our remedies are to be regarded as having both local and constitutional effect. In the outstart, when the patient has excessive heat and dryness of skin, a little ipecac may well be combined with the chlorate of potash, and given alternately with the chlorate alone. We believe the chlorate of potash has not only a local but a constitutional effect, although Wood, in his recent Materia Medica, denies any constitutional effect from it. It certainly has almost specific local effect in stomatitis. As it goes through the system also in the form of chlorate, so that a part reappears in the urine, we will at least give it a chance for "local effect," if you choose so to call it, all along its course. We like these antiseptic or antizymotic medicines which reappear in part in the secretions, showing that they offer their services all along the line. Chlorate of potash dissolved in the tinct ferri chlorodi is our most uniform remedy after the first day. It should always be held a little in the throat before swallowing, and may also be alternated as a gargle, after a free use of the chlorate of potash at first; five grains in five drops of the best tincture will generally suffice if used every two or three hours. Sulphate of quinine is generally needed throughout the course of the disease, in three-grain or more doses every three or four hours. That we may get both its local and constitutional effect it should be used dissolved in only a little liquid. It is best between meals, and is especially needed from two to seven A.M. We all agree that this is a disease in which nutrition is demanded, but in the general tendency to support, we need constantly to guard ourselves with the fact that all food must be digested and assimilated well for several days to meet our purpose. Too frequent food and too frequent medicines must be limited by this rule. Let three meals be made as usual, and also an extra night meal if required, and all with the better foods. Then let milk or beef-tea, or oyster juice, or milk punch, come in between, if needed, as they are quickly disposed of. We have long felt that beef-tea as a nutriment is overrated and so now say Smith and other good authorities. It is a condiment. Orange juice or cranberry juice taken with the regular meals, probably sharpen digestion. In all supporting treatment, keep the assimilating machinery in working order.

In diphtheria, too much attention cannot be paid to all secretions, to purity of air, to regularity of temperature, to change of bed-clothing, and all hygienic conditions. Success in these zymotic diseases depends very often on attention to incidentals. Dilution is the great law as to all these recondite poisons. Neutralizers, oxidizers and absorbents should be at hand to aid, but are only adjuvants. So chloride of lime, sulphate of iron and dry charcoal are not out of place. When diphtheria appears in a family, it is well besides to have each member cleanse the teeth or mouth two or three times per day with a tooth powder of equal parts of chlorate of potash, powdered gum arabic, and granulated sugar.

In our studies of diphtheria we should always keep a careful eye to its nerve element. In older children we see an unrest often, such as we seldom find except in some form of subsultus. I saw for ten days a young man whose chief manifestation of the disease was a restless walking to and fro, and who, up to the time of death showed this uneasiness. The vasomotor system is early involved, and heart-paralysis or enfeebling occurs. The ammoniated tincture of valerian ought to be of service in cases of such enfeebled action, but I have not used it enough to express clinical opinion.

In reference to the hypothetical views, now sometimes expressed as to the disease, we must still hold them *sub judice*. The finding of bacteria or fungi with the microscope itself proves but little. One or the other of these is a constant attendant upon all fermentative processes. In manifold diseases either fungi or vibrios, are accidental, or occurrent far more than causative. In fact it would seem that these often afford one of Nature's ways of disposing of putrefactive and distinctive changes, the infusoria or fungus being less injurious than the disease, except under aggravating disturbing circumstances. We have been looking of late into the germ theory (hypothesis) of disease, life, etc., and find ourselves more troubled with the conflicting testimonies of microscopists than with the diphtheria. Not being personally an expert, I can only compare and wait for higher magnifying powers. Dr. Bastian has found that living things can, by molecular combination, originate from non-living materials, and Dr. Meissner says he has "succeeded in directly producing life in inanimate bodies." Those who hold that the atmosphere everywhere is full of fungus germs, and also of those of infusoriæ, germinating so readily as to appear spontaneous, are apt to see more destructive potency in these than is necessary. Once the animalculæ of water were its great dread, but we now find they often do good; and organic matter and some minerals are far worse. We suspect there are other naughty things about diphtheria than microphytes. Archebiosis and panspermism, homogenesis and heterogenesis must themselves be more defined, and actual results must become surer as causes, effects or incidents, before we can assume that they constitute the morbid animus of the disease. Let us have all this under notice at the same time, remembering the chemistries of disease, the fact of blood-poisons, the insidiousness of the results of animal and vegetable putrefaction in arrested forms, the meaning of absorption of poison as declared by the lymphatic glands, the significance of nerve-impressions and nerve toxics, and all those other points which arise to "advanced thinkers" in medicine, who have not made "germs" a speciality. Most of all, the closest clinical observations and record of facts is needed to aid us in studying this and some other diseases, and it is only as helping a little in this regard that we have written these notes.

THE *Sanitary Journal* is the title of a new periodical that appears in Toronto.

THE TREATMENT OF ABORTION.

By ALEX. J. C. SKENE, M.D.,

Professor of Gynæcology and Clinical Obstetrics in the Long Island College Hospital, Brooklyn, N. Y.

Abortion is an occurrence to which every pregnant woman is liable. Though generally the result of accident or conditions over which the woman has little control, it is frequently brought about intentionally by those who wish to avoid having children. The practitioner is constantly being brought into contact with such cases, and as they may be looked upon to some extent as emergencies, I am led to believe that any contribution, however small, to the management of abortion, may be of some interest.

What follows will have reference to premature expulsion of the ovum at any time from the first to the end of the fourth month. The discussion of causes will be purposely omitted from this paper. It would appear on first thought, that a thorough knowledge of the causes of abortion would be necessary, in order properly to comprehend the treatment; but such knowledge applies more directly to the prevention or the removal of the causes of this accident. So far as the simple management of the expulsion of the ovum is concerned, the subject can be fully understood without any special reference to etiology.

It should be clearly understood that abortion often takes place without there being any necessity for interference on the part of the physician. Although an unnatural occurrence, the vital powers are sufficient in some cases to accomplish the work without the aid of medicine or surgery. On the other hand, there are several ways in which danger may arise, which calls for the most active treatment. Indeed, in the great majority of cases the physician is called upon to either guard the patient from danger or relieve suffering.

The point to settle, when a case of this kind comes up for consideration, is the diagnosis. Firstly, is the patient threatened with abortion? Secondly, can it be arrested, or must it go on? To answer the first, it is necessary to make sure that the patient is pregnant, a diagnosis which is not easily made with certainty. All men of experience will acknowledge the difficulty of diagnosticating pregnancy in the earlier months, and on this account I hope to be pardoned for deviating from the main topic, in alluding to the signs and symptoms of pregnancy, which are supposed to be perfectly familiar to every one. I refer to this matter for the purpose of calling attention to a classification which I believe has the advantage of being more easily remembered than that given in text books.

First. Symptoms manifested by the general system —PRESUMPTIVE.

Second. Signs and symptoms manifested by the reproductive organs—PROBABLE.

Third. Signs manifested by the fœtus in utero—POSITIVE.

Under the first head may be classed all the constitutional symptoms: sympathetic derangement of the digestive and nervous systems; morning sickness, or nausea and vomiting, eructations, heartburn; craving for particular articles of food and loathing others; constipation, salivation, and various neuralgic pains. Either or all of these may be present or absent. At the same time that the patient may have all these symptoms, the general health appears to be good; that is, nutrition and circulation are normal.

Under the second head are classed all the changes occurring in the pelvic organs and mammary glands: suspension of the catamenia, increase in size of the uterus, as observed by prolapsus at first and then ascent; fluctuation or elasticity of the uterus; change in color of the mucous membrane of the vagina; changes in the mammary glands.

The third division comprises ballottement, the placental souffle, fœtal heart, and fœtal motion.

With the best skill and the greatest care, the diagnosis of pregnancy is not always certain; and it is especially difficult when an examination of the pelvic organs cannot be made.

When a patient presents the usual symptoms of abortion—hemorrhage and pain—we are told in books to make an examination of the uterus; but I am sure to make this an invariable rule is unwise practice. If the symptoms are not severe, active treatment is not called for, and an examination under these circumstances would be likely to do harm. Better to wait either until the symptoms pass away or become more marked.

Before making any examination of the uterus, it is better to decide, as nearly as possible, the next important point: can the abortion be arrested, or must it go on? It is impossible to be perfectly sure on this point in all cases. Where there have been free hemorrhage and severe pain for any length of time, the probabilities are that the abortion cannot be averted; while if there is only slight bleeding, and very little or no pain, then the prospects are that the trouble can be arrested.

Fortunately, while we cannot be positive in diagnosis, we can be certain of the proper course of treatment to pursue. So long as there is any hope of arresting it we should direct our efforts towards that end, knowing that if we fail, the treatment employed will not interfere with the favorable termination of the abortion.

When the history obtained indicates pregnancy, and the patient has the symptoms of abortion, she ought to be put into bed, and directed to rest in the recumbent position, but not constantly on the back, as usually directed. I am satisfied that lying on the back for any great length of time tends to excite uterine action. The influence of position on the reproductive organs is well illustrated in spermatorrhœa, the emissions occurring almost always when the subject is lying on his back. The patient should be directed to change from the back to either side, whenever she feels inclined to do so. Lying on the side, with the lower limbs drawn upwards and forwards, throws the pelvis into a semi-prone position, and removes the pressure from the pelvic organs better than any way, except resting on the knees and chest.

When there is pain and much nervous excitement, an anodyne should be given. Opium and bromide of potassium answer well in most cases. If there is no pain the opium should be omitted. A suppository containing a medium dose of opium and belladonna is sometimes very satisfactory. A fair trial of this line of treatment for twelve or twenty-four hours will suffice to show whether the abortion can be prevented or not. If the symptoms continue, and especially if they increase in severity, then hope of arresting it must be abandoned.

To relieve or modify the pain, and keep the hemorrhage in check, are the indications in the first stage of abortion, or during dilation of the cervix. Opium and bromide of potassium, or the bromide and chloral hydrate, should be employed to keep the nervous system quiet during the day, and to give sleep, if possible, during the night. In some cases the pain is so severe that sleep cannot be obtained short of profoundly narcotizing the patient; then the anodyne should be given in such doses as will quiet irritability and enable the patient to bear pain without fretting.

Knowing that the ovum cannot be expelled without some pain, we naturally inquire if such free use of anodynes will not retard the process of abortion. My own observations have satisfied me that the first stage of abortion, *i.e.*, dilatation of the cervix uteri, is not retarded by the use of opium or chloral hydrate. On the contrary, I am inclined to think that opium, judiciously given, rather facilitates dilatation than retards it.

The management of hemorrhage is the next indication to be fulfilled. Although occasionally this does not require any special attention, in many cases it needs the most prompt and masterly treatment. The tampon has been universally employed for the control of bleeding in abortion; in fact it has been almost exclusively used. There have been many substances recommended, and a little diversity in the mode of application, but the principle is always the same. Rags, sponges, cotton wadding, and the rubber bag, or colpeurynter, as it is called, are the ordinary materials in use.

Practically, I have found the tampon objectionable in many respects. It controls the hemorrhage partially, but very seldom completely. It is troublesome to use, both to physician and patient. It must be renewed frequently, because if left in situ for any length of time decomposition occurs to an offensive and dangerous extent. I believe that septicæmia, one of the dangers in abortion, is liable to be induced indirectly by the use of the tampon. These objections cannot all be raised against the colpeurynter, as it is easy to introduce and rêmove, and does not excite decomposition; but what is equally unfortunate, it does not answer the purpose. The rubber bag in the vagina will not control hemorrhage unless it be distended so as to make strong pressure on the vaginal walls and pelvic organs generally. This gives so much distress by exciting pelvic tenesmus that it cannot be borne.

My experience with the vaginal tampon being unfavorable, I have abandoned it altogether. I now trust to the natural mode of controlling or retarding uterine hemorrhage, that is, the formation of coagula in the vagina. To accomplish this I place a compress on the vulva, securing it by the ordinary T bandage. If this fails to keep the bleeding within the bounds of safety, I then tampon the cervix uteri. This is done either by using a sponge tent, as suggested by Sir J. Simpson, or by crowding an ordinary piece of sponge into the cervix with the uterine dressing forceps; or what is better than either, though not always possessed by the practitioner, the hydrostatic dilators.*

The advantages of the cervical tampon over the vaginal are these: the cervical can be introduced and removed through the speculum with the greatest facility, and without much pain to the patient. It more thoroughly controls the hemorrhage, and does not cause vesical and rectal tenesmus. It does not cause decomposition to the same extent. It helps to dilate the cervix, which is desirable; and by damming back the blood into the uterus it separates the attachments of the fœtal membranes from the uterine walls. There is but one objection to the cervical tampon, that it slips out of place unless great care is taken. As the os dilates, the dilator gets loose, and will come away. To prevent this, the water in the dilator should be increased from time to time; but this requires the presence of the physician at short intervals, which is not always convenient. To overcome this objection the dilator should be distended as far as possible, and then fastened to a bandage round the body, in the same manner that surgeons tie a catheter fast in the bladder.

In using the dilator, the greatest care should be exercised in introducing it, so as not to rupture the membranes. It is always desirable to have the ovum expelled whole, as when broken its expulsion by the uterus is often very tedious, and sometimes impossible in any reasonable length of time.

It quite frequently happens that when the os is fully or sufficiently dilated the ovum is not expelled. There is a kind of inertia of the uterus, which permits its contents to remain, and this condition is often attended with hemorrhage. Ergot is then indicated. It will sometimes, but not always, excite uterine contractions, and in that way control the bleeding and expel the ovum. It is at this stage of the process, and at no other, that ergot is useful. I am satisfied from observations that much harm is often done by giving ergot before the os uteri is sufficiently dilated. It is often given to control hemorrhage in the early stage, and generally with ill effects. It rarely if ever controls the bleeding under these circumstances, and is almost sure to increase the patient's suffering if it acts at all. Used at the beginning, it is really worse than useless.

Should there be any delay in the expulsion of the ovum after the os is fully dilated, it is best to employ mechanical means to empty the uterus. The textbooks recommend that the ovum be removed by the finger; and if it cannot be reached by an ordinary digital examination, that the hand should be introduced into the vagina. To those who have practiced this manipulation it is unnecessary to say that it is at all times difficult and sometimes unsuccessful. In abortion in the earlier months of pregnancy one finger is all that can be admitted into the uterus, and this is insufficient to seize and remove the ovum. All that can readily be done is to detach the ovum, break it down, and then trust to its being expelled. When the uterus is larger, as at the end of the fourth month, two or more fingers can be introduced, if the hand is in the vagina; but then the fingers are too short to reach the fundus uteri and scoop out the ovum; and it is seldom that it can be seized even with two or more fingers. And to make this attempt at delivery, it is almost necessary to give chloroform, which adds delay and danger to an operation frequently ending in failure.

After having faithfully tried this standard practice, I have abandoned it for what has proved to be better. When the ovum is retained after dilatation of the os, I remove it through the speculum, by means of forceps and curette. The patient is placed in the semiprone position, and Sims' speculum introduced; the anterior lip of the os is seized with a tenaculum forceps, and the cervix drawn downwards and forwards. An ordinary dressing or bullet forceps is then carried into the uterus, and the ovum seized and brought away whole or in part. If only a part of the ovum is removed by the forceps, which is frequently the case, then the curette should be introduced, and the contents of the uterus thoroughly and rapidly scooped out. The instrument which answers best for this purpose is the curette of copper wire, without a cutting edge, described in Thomas's work on diseases of women, but it requires to be very much larger. In using this instrument with reasonable care, no injury can be done to the uterus.

The uterus usually contracts promptly, to an extent sufficient to prevent hemorrhage, when its contents have been removed by the curette. If in very rare cases hemorrhage continues even when the uterus is perfectly empty, then ergot is indicated, and should be used without delay. If that fails to produce contraction, the uterus may be tamponed with sponge or cotton. Should the bleeding still persist, cotton saturated with persulphate of iron may be used. Dr. J. Marion Sims' method of using "iron-cotton," as he calls it, as a tampon to arrest uterine hemorrhage is the best. He uses a piece of whalebone, as long as a uterine sound, tapering to a point, and curved near the end. According to the length of tampon required, that extent of the whalebone is smeared with lard, and then wrapped with layers of "iron-cotton" until the tampon is the size required. It is then carried up to the fundus uteri, and held in place, while the whalebone is withdrawn. If the uterine tampon inclines to come away, a pad of cotton placed in the vagina will hold it in place. In ten or twelve hours the tampon may be removed.

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* For description and mode of using this instrument I refer to the *American Journal of Obstetrics and Diseases of Women and Children*, May, 1873, p. 92.

The rules of practice may be very briefly recapitulated:

1. Where the symptoms of abortion are slight, and of short duration, efforts should be made to arrest it.
2. During dilatation of the os opium should be given, if there is any call for it, and ergot should be carefully avoided.
3. Hemorrhage should be controlled by tamponing the cervix, the hydrostatic dilator being the best for that purpose.
4. When the os is fully dilated, and the ovum is not promptly expelled, after the use of ergot, it should be removed by the forceps and curette.
5. Post-partum hemorrhage should be arrested by ergot and the intra-uterine tampon.

The inflammation of the uterus, peritoneum, or cellular tissue, which may arise, should be treated on general principles.

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GRADUAL DILATATION
OF STRICTURE OF THE URETHRA ON THE PRINCIPLE OF THE "MULTIPLE WEDGE."

By JOHN. S. COLEMAN, M.D.,

AUGUSTA, GA.

As both internal urethrotomy and divulsion are occasionally followed by such serious consequences, a new method of gradual dilatation must meet the approval of those members of the profession who treat cases of stricture. A gentleman applied to me for relief from retention of urine. Failing to introduce an ordinary catheter, the stricture being in the membranous portion of the urethra, I took one of Gouley's whalebone guides and passed it into the stricture, but not into the bladder. The effort relaxed the spasm sufficiently to admit of his voiding his urine. With the view of eliminating this element of trouble, I directed him to make use of an enema of thirty drops of laudanum just before his next visit. (It is my habit to use quinine freely during the treatment of stricture, as a prophylactic against urethral fever.) On the third day he returned, and I readily introduced into his bladder one of the whalebone guides; after allowing it to remain a few moments the idea occurred to me that I might pass another down by its side, which, with some difficulty, I succeeded in accomplishing. At the third sitting I introduced four of the guides. At the fourth I introduced two guides, together with three gum-elastic bougies of Gemrig's scale; Nos. 3, 4, and 6, the whole equalling in bulk about a No. 7 English scale. On a previous occasion, in a case of retention, I succeeded in relieving the patient by the simple introduction of one guide.

In reply to my communication to Dr. Gouley on the subject, he says: "I have myself wedged in two and sometimes three of these bougies side by side, and have thus rendered otherwise impassable strictures amenable to ordinary dilatation. Three years ago I had some whalebone probe-pointed bougies made very small (capillary) for the first two inches from the vesical end, and thence increasing gradually to Nos. $\frac{1}{2}$, 1, 2, 3, and 4, so that I could accomplish more dilatation with a simple bougie at one sitting than I could with two or three ordinary whalebone capillary bougies introduced side by side." In closing his letter he says: "I would suggest also that a small tunnelled sound or catheter be used after having passed three or four capillary instruments, and while they are still in position In this manner the wedge-principle could be carried out to the point of divulsion if desirable."

It is quite evident to my mind that Dr. Gouley, though he had used the "two or three guides side by side," he did not appreciate the principle involved, for he abandoned it for the "whalebone probe-pointed bougies." The name of this little whalebone instrument designates the use for which it was intended by Dr. Gouley, viz.: a "guide" upon which to pass a "tunnelled grooved sound" into a stricture, to facilitate the operation of external urethrotomy. My plea is that the "wedge-principle" will obviate, in most cases, the necessity for divulsion, internal or external urethrotomy. I therefore claim priority, if not in actual use, in first appreciating and making known the multiple-wedge principle in the treatment of urethral stricture. I am aware that many medical men will at once say that there is nothing new in the wedge; that all conical bougies are wedges. This I grant, but claim that it is a new application of the *principle* of the wedge in the treatment of stricture.

It ought to be a self-evident proposition that it is easier to introduce singly the component parts of a wedge than to introduce it as a whole. Take, for example, a No. 12 conical bougie, even capillary at its point, and attempt to introduce it into a stricture, where is the point of friction and resistance? Is it not around the entire circumference of the stricture?

Diminish the size of the instrument and in a direct ratio you diminish the amount of resistance. After having passed into a stricture one of these whalebone guides, the second has to overcome the friction and resistance of but one-half the circumference of the stricture and the *line of contact* with the other bougie.

Now that we have passed these two, we have a groove in front and behind them, through which we can readily pass the third and fourth, having now to overcome the resistance of but one-fourth the circumference of the stricture and the *two lines of contact* with the instruments already in position.

For these guides the profession owe Dr. Gouley a lasting debt of gratitude.

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Five Works—four German and one English—were entered in competition for the prize offered by the German Empress for the best hand-books on technical military surgery. At the suggestion of the judges, it was ordered that the prize of 2,000 thalers should be divided; that 1,000 thalers be awarded to Dr. Frederick Esmarch, Professor at Kiel, and 500 thalers each be given to Surgeon-Major G. A. Porter, of England, and to Dr. Joseph Landsberger, of Posen.

PARALYSIS OF THE ACCOMMODATION OF THE EYE FOLLOWING AN ATTACK OF DIPHTHERIA.

By P. A. CALLAN, M.D.,

ASSIST. SURGEON NEW YORK EYE INFIRMARY, N. Y.

The two cases here presented occurred in the service of Dr. Henry D. Noyes, at the N. Y. Eye and Ear Infirmary. Considering the large amount of diphtheria in the city at present, and the few cases of eye complications seen in the present epidemic, we think they may be of interest to the profession.

Mary L., æt. 11, Paterson, N. J. The patient about the middle of September had an attack of diphtheria, from which she apparently recovered, and she enjoyed perfect health up to the 1st of November, when she complained of not being able to see distinctly any object, being blurred and hazy, so that she was obliged to discontinue going to school. The mother of patient noticed about the same time that she spoke through her nose and quite indistinctly; having an impediment in her speech as the mother designated it. This condition of affairs having remained unchanged, she was brought to the city, November 16, when she came under our observation for the first time. Patient's physique fair: when spoken to she readily responded, but her pronunciation was quite defective, and she spoke through her nose. Tongue and pharynx normal in appearance, the uvula quite long, and when patient was made to articulate it moved very slightly. Patient had some difficulty in swallowing. The pupils of both eyes were slightly dilated; the vision of both eyes was $\frac{20}{70}$ with glasses, + $\frac{1}{20}$ vision = $\frac{20}{20}$. At a distance of 10 inches she could not see ordinary print, and it was with difficulty that she managed to make out Snellen 6½ at the ordinary reading distance, which should be read at 6½ feet, but with her proper correcting convex glass she could read with comparative ease.

Ophthalmoscope showed a hypermetropic build of eye and a normal fundus. Patient had a hypermetropic of $\frac{1}{20}$.

Treatment.—Tonics, with local application of electricity. November 30, patient's vision has very much improved, but the voice remains much the same. Prognosis very good.

Joseph M., æt. 4½ years, N. Y. City. Patient had an attack of diphtheria about October 1st, from which he slowly recovered. About five weeks from his attack, the mother noticed that he could see small objects which were in close proximity, small playthings for instance, would fall out of his hands and he could not find them; distant objects on the other hand were seen. At the same time he had hemiplegia of the left side, with partial ptosis of the left eye. November 19, the patient came under our observation for the first time, when we found paralysis of acc. in addition to the others just mentioned. Ophthalmoscopic examination showed the eye to be hypermetropic in build, and the fundus perfectly normal. Patient was treated as case No. 1. November 27, vision and ptosis much improved, hemiplegia much the same.

NOVEMBER 30, 1874.

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GERMAN COMMISSION TO THE PHILADELPHIA EXHIBITION.—Dr. Jacobi, of the German Department of Commerce; Dr. Kruger, the Hanseatic representative, and Dr. Neidhardt, member of the Federal Council for Hesse, are among the commission of ten appointed by the Imperial Government to represent Germany at the Centennial.

PERIODICAL VESICULAR ERUPTION, FOLLOWING THE BITE OF A RATTLE-SNAKE.

By HENRY G. PIFFARD, M.D.,

CLINICAL PROFESSOR OF DERMATOLOGY, UNIVERSITY MEDICAL COLLEGE, N. Y.

The following case, observed nearly nine years ago, appears to deserve record, especially as I have met with nothing similar to it in the interval:

On March 29th, 1866, I was called to see Mary O., aged 19 years and married. I found her suffering from an acute disorder, the details of which need not interest us here. When about to feel her pulse I noticed that the tendon of the flexor carpi radialis of the right side was quite tense, the hand somewhat drawn up. In addition, I observed an eruption of small vesicles upon the integument lying between the metacarpal bones of the thumb and index finger. The vesicles were four in number, about the size of a No. 1 bird shot, filled with a slightly yellowish fluid, and were situated upon a somewhat reddened but not raised base. Upon inquiry, I obtained the following history. Six years before she was travelling with the "side-show" of a circus, and it was a part of her business to perform as a snake-charmer, daily exhibiting a number of rattlesnakes, which she took out of a box in which they were confined, and freely handled. On one occasion one of the snakes bit her, its teeth entering both the palmar and dorsal surfaces of the proximal phalanx of the right thumb. The bite was followed by severe pain and great swelling of the forearm and arm nearly to the shoulder, accompanied with discoloration of the integument. In addition there was marked contraction of some of the flexors of the hand, and also nausea. From this accident she appeared to have made a good recovery. Three months later, however, there appeared upon the integument, covering the metacarpal bone of the right thumb, an eruption of three or four small vesicles, accompanied with a "beating" pain at the site of the eruption, together with contraction of the flexors and inability to extend the hand. In the course of a few days the vesicles dried up and the other symptoms disappeared. Since that time and up to the date of my visit she has had a return of the eruption, with contraction of some of the flexors, *every three months*. Her husband stated he could confirm this statement for the previous two years (the period of his acquaintance with her).

April 7th, 1866.—The vesicles have disappeared, leaving only small reddish spots which marked their site. The flexor contraction has subsided.

June 30th, 1866.—Her husband called to inform me that the eruption had returned two days previously. Upon visiting her I found the condition similar to that observed March 29th.

Oct. 1st, 1866.—To-day she showed me the vesicles again. They had appeared several days before, and were on the decline; in fact, nearly dried up. The flexor tension was slight but distinct.

On several occasions since I have seen a repetition of the phenomena described above, occurring with the same *periodical* regularity. For several years I lost sight of this case, and did not meet her again until about a year ago, at which time she informed me that for the last three or four years the vesicles had not returned with their previous regularity, indefinite intervals always greater than three months intervening between the eruptions, and that during the last seven or eight months there had been no reappearance of the vesicles.

The lesions and symptoms described above are evidently dependent upon neurotic influence, but the case, so far as my own experience is concerned, is unique; and I know of nothing similar to it except the *periodical* neuralgias which are said to follow wounds inflicted by some of the *felinidæ*. Dr. Livingstone says that a wound from a lion's tooth is generally followed by great sloughing and discharge, and pains are felt in the part *periodically* ever afterwards.[*]

Original Lecture.

UNIVERSITY MEDICAL COLLEGE.

CLINIC FOR DISEASES OF THE EYE AND EAR.

By PROFESSOR D. B. ST. JOHN ROOSA, M.D.

PHONOGRAPHICALLY REPORTED BY J. M. HERVEY, M.D.,

Wednesday, Dec. 2, 1874.

GENTLEMEN:—I have brought a case here to-day that will illustrate a disease you will all have occasion to treat—a disease of which I have already spoken, and of which I wish to speak more fully than I have hitherto.

OPACITIES OF THE CORNEA FROM TRACHOMA.

CASE I.—Woman, aged about 60. This is one of Dr. Agnew's patients, and it is through his courtesy that she came to-day for the purpose of illustrating what I have to say. I want you to look at the cornea and see the opacities there, and if you look at it carefully, you will be able to see that those opacities must be deeper than the epithelium, and deeper than Bowman's membrane; they are in the true structure of the cornea, and I am sure if the true history of her case could be obtained, we should find that the beginning of this trouble was a catarrhal conjunctivitis, which finally resulted in trachoma. You see one consequence of the trachoma in the opacities of the cornea—for the keratitis which caused this was induced by the pressure of roughened lids on the cornea—and if you look at the eyelid you will see another consequence; you will see that the eyelid fits over the eyeball too tightly to give free space for the eyeball to work beneath the lids; you will see a little shortening of the palpebral fissure, and shrinking of the cartilage—you can see that without turning the lids at all. The conjunctiva is the mucous membrane which lines the lids and covers the front of the eyeball. It is a mucous membrane very richly supplied with vessels and nerves. In that portion of the conjunctiva that we call the palpebral, that is the portion that lines the lids, are numerous furrows, which might be represented by little lines like those on the blackboard. It also has little elevations, called papillæ, but when you turn to the ocular conjunctiva, that which covers the eyeball, you find none of the papillæ. This mucous membrane, so richly supplied with nerves and vessels gets easily inflamed. How? By exposure to cold; by getting the feet wet, and so forth; a man works in the dust and the dust gets into his eyes, and if not thoroughly removed it irritates the nerves of the conjunctiva and causes catarrhal conjunctivitis. What is catarrhal conjunctivitis? It is inflamation of the conjunctiva which creates an increased secretion of mucous and lachrymal fluid, and such a patient has watering of the eyes, and the blood-vessels being enlarged and pressing upon the ball he has a feeling as though sand were in his eyes. This is the first stage, and if properly treated it goes no further; but suppose it goes on: suppose with this mucus we have a little pus mingled, then we have blennorrhœa; but suppose it goes on still further, and all the elements secreted are pus, then we have pyorrhœa. These are the three stages of catarrhal conjunctivitis, but they do not always follow each other in such a way that we can distinguish one stage from the other. Suppose a man gets catarrhal conjunctivitis and it runs on, it does not necessarily run into pyorrhœa or blennorrhœa, but it may pass into trachoma; that is what this woman had at the commencement of this trouble in the cornea. Trachoma or granular lids, so called, is one of the most common of the diseases of the eye. Trachoma means simply a *rough tumor*—the name does not describe the disease at all, and granular lids is another improper name. When a man gets an ulcer on his leg or any other part of his body, and that ulcer does not heal properly, we call that proud flesh, in common language, or exuberant granulations, in technical language, but that is not trachoma. For the so-called granular eye-lids are not cases of exuberant granulations, such as we have in an unhealthy ulcer. If they were so, the lids would constantly adhere to the cornea.

If we had trachoma of the cornea it would become cloudy, and complete loss of sight would occur. The inflammatory process resulting in trachoma, is what microscopists call increase of tissue, or proliferation of tissue; the latter term is much used by pathologists at the present day. By this process of new formation, these little fissures in the conjunctiva are filled up, and these papillæ become enlarged. Trachoma, therefore, or granular lids is simply a filling up of the fissures in the conjunctiva, and an enlargement of its glands or papillæ. This is caused by catarrhal conjunctivitis, which was either not treated at all, or perhaps treated so severely or improperly that the inflammation increased.

The trachomatous formations, themselves consequences of disease, irritate the cornea, set up inflammation which makes it opaque, and at times produces a condition of vascular cornea called pannus, which may go on until the eye be destroyed.

How shall we treat catarrhal conjunctivitis? If you had a case of much increased secretion from the conjunctiva, some redness, etc., the first thing you would do would be to use astringents—that is perfectly proper. Turn up the lids and apply nitrate of silver and neutralize it afterwards by salt and water, but if you do not see the case in the first stage do not use the nitrate of silver. What astringent would you give a patient to use? "Sulphate of zinc;" what else would you do? I would not use any constitutional treatment whatever in catarrhal conjunctivitis. It is a disease which usually comes on from causes which have nothing to do with the constitutional condition. What other local means are there, what else besides astringents? The free use of cool or lukewarm water during the day will be found very soothing. The water may be gently thrown on the closed lids from a basin full of it. The lids will stick together in the morning—what will you do for that? Put a little simple cerate on them at night on going to bed. That is the way you would ordinarily treat catarrhal conjunctivitis, and if treated in that manner you would seldom have trachoma following.

As to blennorrhœa and pyorrhœa, I will pass over them for the present. But suppose you have now a case of trachoma with those elevations on the conjunctiva looking like the spawn of fish. How will you treat that? With sulphate of copper: have a nicely rounded stick of sulphate of copper, and use it once a day. How many months do you suppose it would take to cure a case of trachoma, well developed? It will take from four to six months at the least. You must not tell your patient it will be well in a month or two. If you do, he will be disappointed at the end of that time, and will go round to other doctors and say that you don't know anything about it. But there are very many complications in trachoma which must be carefully noticed, of which I will not now speak

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[*] Travels in Africa, page 15, New York, 1858.

CYCLITIS FROM INHERITED SYPHILIS.

Case II.—Gentlemen, I have lectured about sympathetic ophthalmia or sympathetic inflammation, and I want you to notice in this little man that he has lost his left eye. It was removed one year ago on account of sympathetic irido-choroiditis, and now we find that this boy in spite of that operation has cyclitis. You see that he has no teeth in his upper jaw, and but few in his lower jaw. He has the evidences of mal-nutrition, and some constitutional disease by inheritance of the nature of which I will talk to you when his mother is not present. He is now suffering from inflammation of the ciliary body, an inflammation that any child with two eyes may have with such a constitution as he has got. I show him as a fine example of cyclitis with constitutional taint. The treatment is locally atropine; constitutionally, cod-liver oil, mercury, iodide of potassium, good food, good air, etc.

Case III.—Gentlemen, here are three cases of inflammation of the middle ear—suppurative inflammation of the middle ear. This child has had "a running from the ears" ever since it was a baby, and is now eight years old. This running from the ears originated from catarrh of the tympanic cavity. It is otorrhœa, so called; we call it a chronic suppuration of the middle ear—a name which describes the nature and situation of the disease, and therefore tells all about it. She has been under treatment at the Manhattan Hospital over a year. The prognosis depends upon the amount of destruction the disease has produced. If, as in this case, the ossicles are not gone, the prognosis is favorable; but if the bones are swept away and the cavity stript of its furniture the prognosis is very unfavorable. If the patient has suffered the loss of but one bone a cure may be effected; you only have to keep the ear clean. Simple a thing as cleansing the ears is, but very few know how to do it. I will show you how it is done. With the thumb and finger of one hand you draw the ear upwards in order to straighten the canal, and with the other hand you syringe the ears, as you see me do. Now, gentlemen, all of you who honored me with your attention know how to cleanse ears. Then you should examine the ear with a speculum to see if it is properly cleansed. After it is properly cleansed take a little cotton on a cotton holder, and dry it thoroughly. There will yet be something to do. This tympanic cavity is so small, and there are so many places in it in which pus might accumulate in spite of syringing, it will be necessary to use Politzer's method, for the purpose of forcing out these little plugs of pus and mucus. The main thing is to keep the ears perfectly clean, then some astringent application may be used.

The other two little boys have had running from the ears ever since they recovered from scarlet fever. The ears were perfectly well before they took scarlet fever, they began to inflame after they were well of the fever. The membrani tympani is such a thin membrane, although it has three layers, that it may break through without pain. This child never had any ear-ache, the first thing noticed was the suppuration. The trouble commencing in the pharynx went up through the Eustachian tube and broke through the drum-heads on each side.

One of the many consequences of disease of the middle ear is meningitis, although there are many persons who seem to think this trouble in the ears of little account.

Influence of a Proper Drainage and Water-Supply upon the Mortality of a Town.—In the twelve years immediately preceding the completion of the drainage and water-supply system of Salisbury, England, the yearly mortality amounted to 27 per 1,000. During the twelve years following, the mortality fell to 20 per 1,000, and during the last three years it was only 17 per 1,000. During the latter period typhoid fever was almost unknown, and the cholera, which in 1849, or before these changes had been made, was fatal in nearly 200 cases—was only fatal in 14 cases in 1854, the time at which the works were under completion. In 1866 there was not a single case in the town.—*Geigel's Offentl. Gesundheitspflege.*

Catheter Impacted in the Female Pelvis.—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Barwell reported the case of a female whom he found suffering from a large abscess over the hip, with a sinus in front of the anus, all of which seemed to have originated in an instrumental abortion produced upon her twenty months previous. A subsequent examination, made after the abscess had been evacuated, revealed the presence of a gum-elastic catheter, lying up between the uterus and bowel. A small opening was detected communicating with the rectum, through which the catheter was forced, and then drawn out at the anus.

Case of Chronic Arsenic Poisoning.—Holm, in the *Upsala läkarefören förhand.* describes a dozen cases of arsenic poisoning from the wall-paper, lamp screens, and curtains of dwelling-houses. In these cases the etiology was evident, and the symptoms very distinct and characteristic. The latter were chiefly the following: headache, with a sensation as of a ligature tightly embracing the head; giddiness and fainting; occasionally a faltering gait and a fog before the eyes; the latter were often red and painful; nausea, occasionally vomiting, especially in the morning. Frequently the appetite was bad, the tongue furred, and there was constipation. The sleep was often disturbed by dreams. There was general sinking of the corporeal and mental strength; dulness of the memory and of the power of thought. The appearance was cachetic, and there were occasionally tremors and nervous weakness. It happened pretty constantly that the symptoms rapidly disappeared when the poisoned room was vacated for a while, or the arsenical substances were removed; they rapidly returned, however, when the patient reoccupied the room. Poisoning also occurred where arsenical paper had been covered over with paper that was free from this substance, or where the arsenic was present in oil colors. The author is of the opinion that arsenic is present in the air of such rooms in the form of arseniuretted hydrogen, and that it is more probably absorbed into the human body by way of the skin than by the respiratory organs.—*Nordiskt Med. Arkiv.*, 6 No. iii.

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PERMANENT MEMBERSHIP IN THE STATE SOCIETY.

Permanent membership in the Medical Society of the State of New York is a subject which always invests itself with interest on the eve of every meeting of that association. Not only has it an interest in itself, but as part of a system of society organization, a discussion of its merits commands more or less the attention of the profession at large.

It is pretty generally known that but eight permanent members to this Society are elected each year. This being the case, there is always a considerable amount of struggling on the part of each eligible candidate to gain that honor. It would be strange indeed if there were not many abuses connected with the system of election, and much reason for considerable dissatisfaction. The main claim of injustice in the election of permanent members does not rest so much upon the complaints of individuals as upon the inequality of representation from the different districts. We propose in the following remarks to view the abuses from this stand-point, and suggest what to us appears to be a reasonable remedy.

The difficulty to which we refer is, for the most part, due to a rigorous adherence to the original plan of organization of the Society, and a disposition to ignore the fact that some districts have grown very unequally in population and representation. In other words, we still hold to the original eight Senatorial Districts, notwithstanding the fact that the law of the State, in order to establish the proper ratio of representation, has divided it into thirty-two districts.

We have before us two elaborate tables, which show the Society as it is and as it might be. These tables have been prepared with great care by a gentleman who has given a great deal of time and attention to society organization, and they may be relied upon as accurate. Table I. shows the counties composing each of the eight Senatorial Districts into which the State was divided by the law of 1836. The number of county medical society members (2,836) by counties and districts; the number of delegates (139) to which each county and district is entitled; the number of persons eligible to election to permanent membership (181); the number of permanent members (327), and the population of each county and district. Table II. shows the same classes, but the 60 counties of the State are divided into the existing 32 Senatorial Districts, and the corresponding numbers are given for each county and district.

In the original senatorial division into eight districts, as shown in the first table, the first district is made up of the counties of New York, Kings and Richmond, and has a total membership in county medical societies (as given in the last vol. of the *New York Medical Register*), of 755. From these counties are sent 31 delegates from the societies. one each from 4 medical colleges and 5 from the N. Y. Academy of Medicine, making a total of 40. This district has 48 permanent members. The 5th district, consisting of six counties, Oneida, Madison, Oswego. Lewis, Jefferson and Otsego, has 244 county society members, 14 delegates, and 40 permanent members. The second district (nine counties), Queens, Suffolk, Westchester, Rockland, Putnam (reported as having no society), Orange, Sullivan and Ulster, has 349 county members, 15 delegates, 40 permanent members. The 3d district has seven counties, Albany, Delaware, Green, Columbia, Rensselaer, Schoharie and Schenectady, has 288 county members, 15 delegates, and 47 permanent members. The 4th district has eleven counties, viz., Saratoga, Montgomery, Hamilton, Washington, Warren, Clinton, Essex, Franklin, St. Lawrence, Herkimer and Fulton, has 289 county society members, 14 delegates, and 36 permanent members. The 6th district has 10 counties, Chenango, Broome, Tompkins, Chemung, Tioga, Steuben, Livingston, Alleghany, Cattaraugus, and Schuyler, having in all 345 county society members, 12 delegates, and 36 permanent members. The 7th district, 7 counties, Wayne, Ontario, Yates, Seneca, Cayuga, Onondaga and Portland, has 263 county members, 13 delegates, and 40 permanent members. The 8th district has 7 counties, Chautauqua, Erie, Genesee, Monroe, Orleans, Niagara and Wyoming, with 303 county society members, 15 delegates and 40 permanent members.

Let us apply a little comparison to these figures. It is an established principle that things which are equal to the same thing are equal to each other. Each of these eight districts is entitled to two permanent members each year—therefore the 244 county society members of the 5th district are equal to the 755 of the 1st district; or to put it in another form, 2 permanent members being a common factor, 244 in the 5th equal 755 in the 1st, 349 in the 2d, 288 in the 3d, 289 in the 4th, 345 in the 6th, 263 in the 7th, and 303 in the 8th. Applying the same method to the delegates, we have the 12 delegates of the 6th district equal the 13 of the 17th, the 14 of the 4th and 5th, the 15 of 2d and 3d the 16 of the 8th, and the 40 of the 1st, that is, 12 = 13 = 14 = 15 = 16 = 40. Is there any reason for this inequality, and is there any easily attainable remedy?

In the beginning of the life of the Society, it was proposed to elect extraordinary members, who were to be such as the Society deemed worthy of "respect and attention," who were to have all the rights and privileges of ordinary members, except those of voting and being elected to office. It does not appear from the records that any were elected. In 1813 the law gave the Society the power to elect two permanent members each year from the State at large, who were to be "eminent and respectable." The purpose of doing honor to eminent and respectable practitioners is thus made clear. As only two could be elected in any year, all desired the honor. In order that more might attain unto it, in 1845 a law was passed by the Legislature permitting the election of two annually from each of the eight Senatorial Districts then existing. The result has been that the number elected in each year being the same for each district, and the districts (however they may have been in 1836), having grown at unequal rates, or at least the first having grown much faster than any other, we have the very glaring inequality that has just been exposed.

In 1867 a delegate whose name had been five years on the list of those declared eligible to election as permanent members, proposed to amend the by-laws so as to increase the number to be elected annually to six in each Senatorial District. This being declared out of order, he asked the Society to request the legislature to authorize such a change. The request was, however, after some debate, "indefinitely postponed."

Relief may not be thus obtained, but is there no way of rendering equal justice to all parts of the State? We propose to obtain a remedy by electing the permanent members from the present Senatorial Districts, of which there are thirty-two, and which are as nearly equal in population as may be,—instead of from the eight of 1836.

This will simply require that the sixteen permanent members be elected each (even-numbered) year from the districts with even numbers, and from those with odd numbers on the odd years. If this were done, the county of New York would, each even year, elect three, and each odd year two such members. Kings would elect one each year, and Albany, Oneida, Monroe and Erie would each elect one every other year. Under this arrangement, the Twenty-third Senatorial District, Chenango, Delaware and Schoharie counties, has the largest medical population, 115. The smallest is the Thirty-second, viz., Cattaraugus and Chautauqua counties, which have only fifty-seven county members. The five of New York will average 103⅕—the two of Kings, 107.

This plan, while it will not remove the present inequality of representation, will prevent its becoming more glaring.

How can it be carried out? Unfortunately it will require an authorization from the legislature. The law of 1845 runs as follows: "It shall and may be lawful for the Medical Society of this State to elect annually such a number of permanent members as they may from time to time determine by their by-laws, not to exceed two annually from any one Senatorial District." This might be amended so as to read as follows:

"The Society may annually elect from those who have served as delegates, and have been nominated and declared eligible at a previous annual meeting, not more than sixteen permanent members to be chosen from the thirty-two Senatorial Districts now existing, in alternation by even and odd numbers, the candidates being residents of the districts from which they are elected, except when a county contains two or more districts, in which case residence shall be restricted to the including county only."

The law being thus amended, the by-laws of the Society could be made at once to conform to it.

We believe that the time has come when some such change should be made. The dissatisfaction in regard to the election of permanent members is growing year by year, and the proposition which we make may be one of the means to arrest it. At least, on the principle of fair play, it should commend itself to the serious consideration of every one interested in the prosperity of the Society.

THE HEALTH OF OUR PORT.

From the third annual report of Dr. S. O. Vanderpoel, Health Officer, we have the gratification of knowing that less sickness of a transmissible character has entered our port than during any season for several years past. One of the chief causes for this state of affairs is a decrease of the number of immigrants, but another cause, to which too much importance cannot be attached, is the enforcement of regulations not only tending to maintain the health of passengers, but to their proper sanitary inspection before leaving European ports. Dr. Vanderpoel very properly lays great stress upon these points, and shows his thorough appreciation of the higher functions of his office. The education of the owners of vessels in regard to the importance of preventing disease has been attended with such satisfactory results that, in place of the former opposition to quarantine, there is a desire to encourage him in the performance of his official duties. This is certainly a very gratifying exhibit, and reflects great credit upon the judgment and skill with which the duties of the office have been performed.

REDUCTION OF SALARIES IN THE HEALTH BOARD.

We learn that the salaries of the Sanitary Superintendent, Registrar of Vital Statistics, and the Sanitary Inspectors, have been reduced to bring the expenditures within the range of the appropriations for the coming year. This may have been a necessity, but have the Health Commissioners borne their share in the reduction?

Reviews and Notices of Books.

THERAPEUTICS AND MATERIA MEDICA; A SYSTEMATIC TREATISE ON THE ACTION AND USES OF MEDICINAL AGENTS, INCLUDING THEIR DESCRIPTION AND HISTORY. By ALFRED STILLE, M.D., Prof. Theory and Practice of Medicine, etc., Univ. of Penn. Fourth edition, in two vols. Philadelphia: H. C. Lea. 1874. 8vo, pp. 1944.

THE work before us, after being out of print for some time, makes its appearance as a fourth edition. As a treatise its reputation is already well established, and many of our readers are practically acquainted with its claims to the front rank as a guide to the study of one of the most important yet very much neglected departments of our science.

In the present issue nearly three hundred pages have been added, while the chapter on Electricity has been almost entirely rewritten. The original classification of medicines remains the same, and, while there will always be some who will object to any arrangement not of their own making, we are willing to accept the judgment of the author as well founded.

All works of this class must necessarily be more for reference than continued study, and when one consults them, he is fortunate if, in his search for information concerning any particular drug, he is rewarded by a knowledge concerning it which is founded upon observations of fact and based upon clinical experience. There is no branch of medicine so given to theory as materia medica, and no department which, practically speaking, has less need of it. Our ideas of the actions of drugs are founded for the most part on empiricism, and any discoveries of good effects which we have made have been more by chance than calculation. Clinical experience, after all, is the real element of value in the estimation of the properties of our remedies, and it is one of the features of this work that so much attention is paid to it, and so much pains taken to arrive at conclusions independent of any preconceived opinions. While this is the case, there is no desire to ignore the opinions of others, and no disposition to neglect the study of therapeutics in its most comprehensive sense, to view each remedy not only in its clinical but physiological, physical, and chemical relations.

The present edition is fully up to the requirements of the times, and is fully able to maintain the enviable reputation which the work has long since gained for itself as a first-class authority.

THE BREATH AND THE DISEASES WHICH GIVE IT A FETID ODOR, WITH DIRECTIONS FOR TREATMENT. By JOSEPH W. HOWE, M.D., Author of Emergencies, Clin. Prof. of Surgery in Univ. Med. College, etc. New York: D. Appleton & Co. 1874. 12mo, pp. 108.

IN this little work the author has taken the pains to arrange in systematic form the various diseases or conditions which are associated with or give rise to fetid breath. Under the head of general causes of this condition he mentions the lack of power to eliminate "metamorphosed nitrogenous tissues through the mucous membrane of the intestine," and also the tardy passage of decomposing detritus through the bowels, or defective elimination of excrementitious substances by the kidneys. Again, under the head of systemic causes he mentions mental emotion, and in the course of remarks upon the effects of the latter, relates the usual anecdotes in illustration, which are very good to tell, but very hard to believe. He then refers to some cases of his own, which are to the point, and, as far as they go, prove the theory. Next in order follows the consideration of fetid odors depending upon dyspepsia, constipation, bad teeth, ulcers of the mouth, follicular pharyngitis, and lastly, upon mineral poisons, all of which subjects are rather indifferently presented.

In the treatment for these different affections there is nothing peculiar to note, except perhaps the number and variety of the different prescriptions which are scattered through the work, and which prove that the author is better calculated to treat these diseases than to write about them.

Progress of Medical Science.

THE TREATMENT OF FISTULOUS SINUSES BY THE ELASTIC LIGATURE.—Mr. Allingham, of London, in a recent article on the above subject, after ascribing to Prof. Dittel, of Vienna, the honor of having brought into general notice the elastic ligature, though the first applications seem to have been made by Dr. Silvestri, of Vicenza, states that he is convinced from experience that there are decided advantages in the elastic ligature over the knife in many surgical cases, and particularly in the treatment of fistulæ. He mentions its use in sixty operations, of which forty were for fistula in ano, five were for hæmorrhoids, two for removal of scirrhous breasts, two for varicocele, and the rest for various other diseases. In none did any serious consequence follow the operation, and it was noticed that cases which had been operated upon by the ligature did much better than those which had been treated by the knife, though the patients were under the same hygienic influences. He was careful not to be partial in the selection of cases. He thinks that the probable advantages of the ligature over the knife in ordinary sinuses, are:

1. The operation is commonly painless, and the subsequent suffering, if any, is usually very slight.
2. It is bloodless.
3. There is greater rapidity of cure.
4. The patient need not keep his bed, nor even his room, but may go into the air and drive or walk in moderation.
5. Its peculiar applicability to delicate patients, and those who have a phthisical tendency.
6. There is usually no anæsthetic required.
7. There is a minimum amount of suppuration.
8. And one may add, that the ligature is often very advantageous as a supplement to the knife. *Medical Press and Circular*, December 2, 1874.

THE PHYSIOLOGY OF VOMITING AND THE ACTION OF DRUGS UPON IT.—Dr. T. Lauder Brunton, the present editor of *The Practitioner*, in a highly interesting article on the above subject, submits the following conclusions:—

(1.) Vomiting consists in two factors, viz. (1) the simultaneous compression of the stomach by the abdominal muscles and diaphragm; and (2) the opening of the cardiac orifice by the contraction of the longitudinal fibres of the œsophagus.

(2.) When innervation is disturbed, these two factors do not occur together, and thus retching may occur without vomiting.

(3.) The movements of vomiting are correlated by a nervous centre in the medulla oblongata, from which impulses are sent down through various motor nerves to the muscular structures engaged in the act.

(4.) This nervous centre is probably closely connected with the respiratory centre, but is not identical with it.

(5.) It is usually set in action reflexly by irritation of the pharyngeal, gastric, hepatic, enteric, renal, uterine, ovarian, and possibly also by the pulmonary and vesical nerves which come from the periphery towards it. It may also be excited by impressions sent down to it from the brain.

(6.) Vomiting may be arrested in two ways, either by removing the irritant which is exciting the vomiting centre, or by lessening the excitability itself, so that the centre no longer responds to the impressions made on it from without.

(7.) Emetics may be divided into two classes: those which act only on the stomach, and those which act on the vomiting centre also.

(8.) Tartar emetic probably acts in both ways. Tolerance of it is probably due to want of hydrochloric acid in the stomach.

(9.) Emetics may be used to evacuate the stomach and duodenum. They thus remove irritating matters, poisons generated in the stomach by putrefaction, bile, and metals or fever poisons circulating in the entero-hepatic circulation.

(10.) They may be also used to empty the bronchi and gall-bladder, or to cut short epileptic and to prevent ague fits.—*The Practitioner*, December, 1875.

The Pin-hole Os Uteri as a cause of Dysmenorrhœa.—In a discussion of the subject of dysmenorrhœa which took place in the Obstetric Section of the British Medical Association, at its last meeting, Dr. Matthews Duncan differed from preceding speakers and from most authors in that he had met with a pin-hole cervix only once in a few years in a large practice, whereas dysmenorrhœa was very frequent where there was no pin-hole os. It was a grievous deformity, and out of all proportion to dysmenorrhœa. Few men had examined more cervices uteri, probably, than he had during the last twenty-five years, and he found pin-hole cervix to be as rare as an acephalous fœtus; the condition, even where it did exist, did not cause dysmenorrhœa. A pin-hole was large enough to allow a woman to bleed to death within a few hours. It was not a cause of mechanical dysmenorrhœa; the whole theory was fallacious; the same phenomena were to be seen in early abortion. The pains of real dysmenorrhœa were fearful, indicated by cold-sweats, vomiting, and intense agony. It was not a disorder of the external os uteri. The cervix might be cut off without benefit. Mechanical dysmenorrhœa was a disease of a spasmodic character. In the most serious forms women sometimes passed over a period without the least pain, showing that it was not mechanical. Mechanical treatment is most useful in this disorder, but should be employed with great care. Where the general health is deteriorated, there is risk of cellulitis. Mechanical treatment should only be resorted to when the general health is suffering, and the simplest treatment is the best, such as the bougie, as suggested many years ago by Dr. Mackintosh. Many cases were permanently cured by a single passage of a bougie. A well-marked analogy is spasmodic stricture of the urethra, where micturition can be accomplished after a bougie has been passed. Spasm of the uterus is the essence of dysmenorrhœa.—*British Medical Journal.*

Influence of Nutritive Changes and External Circumstances in the Parent upon the Development of Scrofulous Children.—In a recent address by Dr. Evory Kenedy, before the Dublin Obstetrical Society, the proposition was put forward that scrofula is affected by the surroundings and circumstances which modify the human organism, his views being founded upon the fact that "all organizations are not merely variable but varying." The following case was mentioned as an interesting illustration of the manner in which external circumstances may lead to the production of those modifications of the human organism which we collectively term "scrofula," and of a return to the normal condition when the circumstances which had produced the changes had passed away.

A peasant, whose family was liable to scrofulous modification, as seen markedly in his sister and her family, married a woman free fom any taint of scrofula, and had two children, who presented none of the characteristics known as scrofula. After their birth the father had an attack of rheumatic fever, which left him with an injured heart, and consequently in straitened circumstances from his crippled condition as a bread-winner. During this period of nipping poverty two other children were born, whose clumsy fingers, thick joints, tumid alæ nasi and upper lips, together with a strong tendency to glandular enlargements, mark the scrofulous diathesis. After this time the mother had an annuity left her, which once more placed them in comparative plenty. Two more children were born, approaching the healthy type of the two eldest, and comparatively free from the characteristics of the middle pair. When the family are gathered together, the history of the married life of the parents can be read in the physiques of their offspring.—*Br. Med. Jour.*

Adipocere.—During the past summer an example of the conversion of the tissues of the body into that spermaceti-like substance known as adipocere occurred in the body of a woman which had been dredged from the Thames, in London after having been embedded in the mud for an unknown period—probably two or three years. Upon rapping, the body was hard and perfectly resonant, and the whole of the internal organs were converted into a solid mass, which, like the rest of the body, when cut into, had the appearance and consistence of hard, discolored wax. One leg was absent, having, probably, been separated by the weight of the mud when the body was pulled up by the dredger.

Amputation of the Penis by Galvano-Cautery.—Dr. A. Amussat reports a case of amputation of the penis for an epithelioma involving the whole of the glans and a portion of the body of the penis. The operation was done by seizing the penis, just behind the affected portion, in a loop of platinum wire, which was then attached to a battery and tightened very slowly in order to prevent hemorrhage. No accident occurred, a sound was left in the urethra, and in six weeks the wound had completely cicatrized, and the patient made a good recovery.

The next time he has a similar case Dr. Amussat proposes to make use of the elastic bandage for the purpose of compression, if possible, in order to be able to operate more rapidly, without danger of hemorrhage.—*Journal de Médécine et de Chirurgie Pratiques*, vol. xlv., p. 64, 1874.

Catheterization of the Larynx in Croup and Diphtheria.—Huettenbrenner, of Vienna, regards the apparatus of Weinlechner as the best that has been devised for catheterizing the larynx. The description of the apparatus and the method of employing it are given in the *Jahrbuch f. Kinderhlkde.* for 1870. It consists of a hard rubber tube and a peculiar wedge, which keeps the jaws of the patient apart during the course of the operation. The following are some of the statements that are made in regard to the advantages and disadvantages of this method of treatment. In introducing either a catheter or tube into the larynx, conditions may arise that will cause asphyxia in the child, either from lack of suitable assistance on the part of the operator, or from the detachment of portions of the false membrane which may then form obstructions in the trachea or bronchi. This latter accident has occurred twice under his own observation. It is almost impossible to avoid wounding the mucous membrane of the mouth or throat, and even slight wounds may cause hæmorrhage, and may even be the seat of fresh diphtheritic exudations. The effect of the operation is but temporary, as the relief it gives lasts only a few hours, and it requires a number of skilled assistants if success is to be expected; experience has shown that the operation should be performed but once, and then only to gain time. It can never be regarded as a substitute for tracheotomy. The author in making these statements does not mean to decry the utility of this operation in other affections of the larynx. —*Jahrb. f. Kinderhlkde.*, Sept., 1874.

Reports of Societies.

NEW YORK COUNTY MEDICAL SOCIETY.

Adjourned Meeting, Jan. 12, 1875.

Dr. H. B. Sands, President, in the Chair.

The paper for the evening was read by Dr. George M. Beard, upon "The Relation of the Medical Profession to the Delusions of

SPIRITUALISM, ANIMAL MAGNETISM, CLAIRVOYANCE, MIND-READING, ETC.—HOW THESE SHOULD BE DETECTED AND EXPOSED."

The doctor, in the first place, gave a brief sketch of the history of animal magnetism in Germany, France, England and America. He showed how the hypothesis of a magnetic fluid, first started by Mesmer, had been disproved three times over, by careful investigations of very able men, committees of the French Academy. In England, the hypothesis was disproved by the careful experiments of Mr. Wakley and others. In America, the hypothesis has also been disproved by a number of experimenters. The Fox girls, who started the rapping excitement, were exposed by a committee composed of Dr. Austin Flint, Jr., Dr. Charles A. Lee, and Dr. C. B. Coventry, then members of the Faculty of the University of Buffalo.

Trance was described as a passive state, in which the will, partially or wholly, loses control.

The symptom of sleep is only one of very many of the symptoms that belong to the trance state. *All* persons are liable, under certain circumstances, to go into certain stages of trance. Trance is, in short, the *involuntary* side of human life. When under any circumstances the *involuntary*, or automatic part of a man, predominates over the voluntary part, then there is a state of trance. We may enter into this state through any of the emotions, such as fear, anger, love, joy, reverence, expectation, wonder; or through the influence of alcohol, opium, chloroform, nitrous oxide, etc., or anything which causes the will to be divorced from the mind. The common custom of making passes or manipulations on a subject is only one of many ways by which a patient can be put into a state of trance. In these cases it is the emotion of expectation or reverence or wonder that causes the subject to go into the trance, and not any force of magnetism which comes from the operator. The operator may be in the next room, far away; or many can go into the trance of themselves alone at any time. A case of this kind is now under the doctor's observation. The leading symptoms of trance vary much in different persons, and may be embraced under the following heads.

(1.) Closing of the eyes, and fixed condition.

(2.) Flushing of the face and eyes, and cold perspiration.

(3.) Hard breathing, rapid pulse, with sense of oppression.

(4.) Coldness of extremities.

(5.) Mild or violent involuntary muscular motion.

(6.) Involuntary mental action, with exaltation of the faculties.

(7.) Great exaltation or depression of the general and special sensation.

(8.) Nameless and numberless hysterical symptoms.

(9.) Profound and protracted sleep.

We can go into a trance through various pathological states, as hysteria and insanity; or through common sleep, somnambulism, ecstacy, catalepsy, which are all manifestations of a trance or automatic state.

All persons are liable to go into the trance state, under certain conditions, even the strongest minded. There are all degrees of trance, from the simple absent-mindedness of the scholar to the profound and protracted sleep of the hysterical girl, or those who claim to sleep under the influence of some extra-mundane power.

A person in a trance, with the hands upon a table, may, by *involuntary* muscular motion, make it strike, rap, and move about. With his hands upon a planchette, or holding a pencil over a piece of paper, he may write, through involuntary muscular action, thoughts, words, and phrases, and even languages which have been long forgotten. He wonders where they come from; but upon close study, you will find that they all come from past experience, and have been locked up within the cerebral cells. In a trance there is a very great exaltation of the faculties; but in no stage of trance is there a transference of faculties, or are new faculties given, differing in kind from those present in the individual when not in a state of trance.

Spiritualism is all trance and trickery, with a vast excess of trickery.

If the trance is well understood by the medical profession, the exposure of the trickery will be very easy.

The hypothesis of animal magnetism should be driven from the medical profession, for it has no basis whatever. There is animal electricity, but electricity and nerve force are now known to be identical.

The phenomena commonly *attributed* to animal magnetism are really the phenomena of trance.

Clairvoyance is all guess work and trickery. No human being has ever, in trance or out of it, in health or disease, had the power to read through opaque objects, or with the pit of the stomach, or to cerebrate at their fingers' ends.

The mind-reading of Brown is explained entirely by *involuntary* muscular action, or movements on the part of the person with whom he operates. It is very difficult, and for many impossible, to look at any object, and centre their mind upon it when near, without giving some impulse or muscular movement, *involuntary*, towards it; and, availing himself of this fact, which the profession have ignored, Brown has performed brilliant and surprising trickery.

The leading thoughts in this subject which ought to be kept before the professional mind are these:

(1.) These illusions can only be studied with success by experts, and as they are medical illusions, the experts ought to come from the medical profession.

It is *our* business and not the business of any one else; and to chemists and physicists, and natural philosophers, and editors and statesmen, and especially lawyers and judges, we should say, "Stand aside; this is our department; we alone are competent to study it and solve the problems, and you must come to *us* for information."

One of the best evidences that a man is becoming expert in the study of these things is that he does *not* trust his senses.

(2.) In this, as in all branches of science, *human testimony* as such is worth nothing, and should be ruled out without examination.

In all other important departments we follow experts, and pay no heed to the opinions or prejudices or statements of others, and we must do the same here.

(3.) In proportion as medical men become experts in this special branch of inquiry will they come to know that all the performances of clairvoyants, mind-readers, mesmerizers, etc., can be explained by laws already known to experts, and by trickery; and that there is about them no mystery whatever.

(4.) The prime requisite for success in studying those who profess to have this power is to recognize the fact that we are the experimenters, and not they; and then they may be deceived at every point. We must treat these pretenders like animals in the laboratory.

One prominent reason why those who visit the seances give absurd accounts of what they see is because they are themselves in a trance through reverence of wonder, and see anything they are told to see. Hence their statements are worth nothing.

In conclusion the doctor stated that, since the exposure of various mediums, all the prominent mediums in the country have been exposed, some of them over and over again, and that there was no large city in this country where mediums dared to hold public seances; that there was a gradual improvement in society in that respect; that there never was a time in the history of civilization, in proportion to the population, when there was so little spiritualism as now. The present time, therefore is particularly auspicious for the medical profession to step in and study the subject from a purely scientific basis. If they do so, the result may be that clairvoyance, mind-reading, animal magnetism, psychic force, second-sight, spiritualism, and all the sisterhood of superstition, will be driven back to join their great progenitor witchcraft, and return to plague civilization no more forever.

Dr. J. C. Peters remarked at some length upon the trickery of so-called spiritual manifestations and mind-reading, and in conclusion presented the following resolution:

Resolved, That a committee of five be appointed by the chair to consider, and at their convenience report upon the following questions:

1st. Is the state or condition of mind known generally as the mesmeric state a reality or a deception?

2d. If it is a real physiological state, what are the conditions necessary to its production, and what the phenomena attending it?

3d. Is it a state to which one mind can subject another, or does it depend upon some conditions voluntarily submitted to by the individual?

4th. Is it possible while in this so-called mesmeric trance, or at any other time, or in any other condition known to man in his mundane experience, for one person to divine what is passing in the mind of another, except through the medium of signs?

5th. Is there any such faculty known to our race as perceiving by some mysterious second-sight what is transpiring in places far beyond the reach of ordinary human vision, or what is written on paper when an opaque object lies between it and the person attempting to read?

6th. Is there any evidence that the well-known law of gravitation is ever overcome by a force hitherto unrecognized by scientists?

The resolution was adopted, and the following gentlemen named as the committee: Dr. Ellsworth Elliott, Dr. J. C. Peters, Dr. Fordyce Barker, Dr. Austin Flint, Sr., Dr. A. B. Crosby.

The society then adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 10th to January 16th, 1875.

Cronkhite, H. M., Assistant Surgeon.—Assigned to temporary duty at Fort Yuma, Cal., and, when relieved by Assistant Surgeon Loring, assigned to duty as Post Surgeon at Camp Verde, A. T. [S. O. 113, Department of Arizona, Dec. 26, 1874.

Rose, Geo. S., Assistant Surgeon.—When relieved by Assistant Surgeon Cronkhite, to comply with S. O. 233, C. S., War Department. S. O. 113, C. S., Department of Arizona.

Loring, L. Y., Assistant Surgeon.—Assigned to duty at Fort Yuma, Cal. S. O. 111, Department of Arizona, Dec. 21, 1874.

Medical Items and News.

New York Eastern Dispensary.—At the Meeting of the Board of Trustees, held for organization, January 12th, 1875, the following officers were elected:—William Dennistoun, President; John T. Willetts, Vice-President; Robert R. Crosby, Treasurer; Russell Raymond, Secretary.

New York Pathological Society.—At the Annual Meeting of this Society, held January 13th, 1875, the following officers were elected:—Dr. Francis Delafield, President; Dr. E. G. Janeway, Vice-President; Dr. George F. Shrady, Secretary; Dr. John H. Hinton, Treasurer, and Dr. J. C. Peters, Editor of *The Transactions*.

Committee on Admissions:—Drs. J. C. Peters, S. Caro, R. Newman, F. V. White, and J. H. Hinton.

Committee on Publication.—Drs. E. Mason, Drake, Newman, and Watts.

The Twentieth Annual Charity Ball in aid of the Nursery and Child's Hospital will take place at the Academy of Music on Thursday evening, Feb. 4th, under the usual management.

Alumni of Albany Medical College.—At the second annual meeting of this Association, held at Albany on the 22d of December, the following officers were elected for the coming year:

President, Dr. John Buch ('41), Michigan. *Vice-Presidents*, Drs. Mon. D. Hall ('41), New York; B. A. Mynderse ('53), New York; Alex. Shilard ('53), New York; Sol. Van Etten ('53), New York; Chas. L. Spencer ('53), Massachusetts. *Secretary*, Dr. Willis G. Tucker ('70), New York. *Treasurer*, Dr. G. L. Ullman ('71), New York. *Executive Committee*, Drs. H. D. Didima ('46), William S. Young ('41), Jos. H. Sloon ('49), Jos. S. Baily ('53), M. H. Burton ('53), John H. Hill ('53), Charles H. Burbeck ('59), N. P. Ten Eyck ('66), J. H. Blatner ('72), Oscar Myers ('73).

Physicians Accused of Robbing Graves.—Some excitement has been caused in Terre Haute, Ind., by the arrest of Dr. W. H. Myers, a prominent physician, Dr. N. Myers and Dr. H. V. Werengen, on the charge of robbing a cemetery at Van Wert, Ohio, in December last, of the body of Carl Wolf, a German emigrant, who committed suicide. The arrests were made by Sheriff Billman, of Van Wert, on a requisition from Gov. Hendricks. The physicians were taken before Judge Lowry and discharged on account of a technical flaw in the warrant. It is said that they will be rearrested as soon as a new warrant can be obtained.

An Anonymous Benefactor.—For several years past some unknown person has been in the habit of sending checks for £1,000, at intervals, to the several charitable institutions in London, and all efforts to discover who it was failed. The *John Bull* now says that it was a Mr. Attwood, who died recently near Cheshunt. He was above eighty years old, and a bachelor; rich, but living very quietly. His books show that he gave away £350,000 by these checks—£45,000 within the last year. He has left more than a million sterling and no will. A thousand pound note was found lying about the room, as if it had been waste paper.

American Microscopical Society.—At the annual meeting of the American Microscopical Society the following officers were appointed for the ensuing year: President, John B. Rich, M. D.; Vice President, W. H. Atkinson, M. D.; Secretary, C. F. Cox; Treasurer, Prof. T. L. Orenieu; Curator, William Dean.

Scarlet Fever in Buffalo.—The Buffalo *Commercial Advertiser* says that scarlet fever has prevailed in that city to an extent greater than ever before, and that the number of deaths therefrom—principally among children—has been very large. The total number of deaths from this disease during the year 1874, as reported by the Health Physician, Dr. O'Brien, was 626.

The Southern Dental Association will hold its next annual meeting at Memphis, Tenn., on the 9th of February.

The Northern Dispensary.—The Board of Trustees of the Northern Dispensary last evening elected the following officers for the ensuing year: President, Wm. K. Thorn; First Vice-President, John W. Quincey; Second Vice-President, John H. Mortimer; Third Vice-President, J. Harsen Rhoades; Secretary, John Lawrence; Treasurer, George C. Wetmore; Counsellor, Henry A. Tailer; Finance Committee: Edward Scheil, W. H. Braman, C. M. Earle, W. E. Lawrence and A. G. Bogart.

Poisoning by Belladonna.—A Mrs. Susanna Bowling died at Baltimore recently from the effect of a dose of belladonna which had been purchased from a druggist for syrup of senna.

Metropolitan Throat Hospital.—At the annual meeting of the Trustees of this Dispensary, at No 17 Stuyvesant street, a full Board of Trustees was elected. During the past year the visits made to the hospital by patients suffering from afflictions of the throat and nose has been 3,408, and thirty-four surgical operations have been performed.

A Physician at North Guilford, Conn., recently attempted to collect a bill of $50 for professional services, when it was offset by a formidable bill for dinners, horse baitings, presents of milk, fruit and vegetables, all of which had been tendered ostensibly out of good will. Strange to say, the patient's offset was held valid in a New Haven Court, and the doctor had to pay $7 to get square.

The American Meteorological Society, at its annual meeting, held at the Cooper Institute in this city on the 28th of last month, adopted the following resolutions:

Resolved, That this society highly approves of the plan which has been set on foot among the members of scientific professions in the United States to secure a general consent to the adoption of the metric measures and weights in their professional practice after July 4th, 1876.

Resolved, That the members of this society will, as far as they may be able, employ their personal influence in aid of the plan above mentioned.

Resolved, That a committee be appointed to recommend the erection in the various State capitals of a standard yard and metre, to be provided by the Bureau of Weights and Measures of the United States.

The Olive Crop.—Olive oil is produced in large quantities in Tunis. The olive crop has been so abundant during the past year that as many as 3,472 tons, of the value of $629,465, have been shipped to Great Britian, France and Italy.

Permanence of Vital Power.—In clearing away the refuse from the ancient silver mines of Larium, in Greece, a large number of seeds of a papaveracea of the *Glaucium* genus were found, which must have been buried there for at least fifteen hundred years. Exposed to the beneficent influence of the sun's rays, they rapidly took root, flourished, budded and blossomed, their yellow corollas being beautiful in the extreme. This interesting flower, unknown to modern science, is particularly and frequently described in the writings of Pliny and Dioscorides, and is thus again resuscitated, after having disappeared from the surface of the globe for more than fifteen centuries.

Dr. T. H. Holgate.—Among the numerous sufferers from falls upon slippery pavements, is Dr. T. H. Holgate, of 263 W. 15th street, who, on the night of the 12th instant, had a fracture of the upper extremity of the femur.

Alexander S. Doherty, A.M., M.D.—Dr. Alexander S. Doherty, lately residing at 138 E. 29th street, died on the morning of January 19th instant, of double pneumonia, aged twenty-seven years. He was the second son of William Doherty, and was a native of St. John, N. B. He was educated at St. John's College, Fordham, and was a student in medicine of Prof. James R. Wood. He received the degree of M.D. from Bellevue Hospital Medical College in 1869, and held the following appointments in the institutions in this city:—Assistant Physician, Nursery Hospital, Randall's Island; Examining Physician, Department of Public Charities and Correction; and Resident Physician, New York City Inebriate Asylum. At the time of his sickness he was engaged in private practice.

The Bleaching of Bones and Ivory has been rapidly and successfully caried out at the museum of the *Jardin des Plantes*, by immersing the articles in spirits of turpentine, taking care that they are kept a short distance from the bottom. When treated in this manner and exposed to sunlight, a few days, it is said, suffice to free bones from fat and disagreeable odor, and render them beautifully white. Woods of different kinds may also be bleached in this manner. The necessity of keeping the articles from touching the bottom of the vessel is on account of the formation of an acid substance which collects at the bottom of this fluid, and is capable of attacking the substances being bleached.

A New Cause for Blue (Lead) Line on Gums.—A writer in the London *Lancet* asserts that the constant use of powdered charcoal as a dentifrice will produce a blue line on the gums, closely simulating that of lead-poisoning.

Diphtheria.—The Board of Health of this city have appointed Drs. Edward Curtis and Thomas E. Satterthwaite, of this city, to investigate the subject of Diphtheria, with a view to determine more nearly, if possible, the character of the disease and the best means for contending with it.

A Handsome Medical Fee.—Dr. Waldau, of Berlin, assistant of the late Von Graefe, received 25.000 thalers from the banker Bleichroeder, for a cataract operation.

Bromine is largely manufactured in Western Virginia. One hundred and thirty thousand pounds were produced in the Ohio and Kanawha valleys in the year 1873.

Small-Pox among the Kalmuck Tartars.—Nowhere, says the *Golos*, does variola make such ravages as among the Tartars. When the disease bursts in the midst of a family all the ties of blood and friendship are broken; often the Tartar, quitting his mother, wife, and children, mounts on horseback and flees his country. When the plague descends on a tent in winter, those it attacks are almost infallibly lost, abandoned as they are under a light tent to a cold of more than 25° below zero. Sometimes only fifteen days suffice to destroy a whole family. The only remedy they use is hot milk, diluted with water; the sole preservative is brandy.

The Tartars almost never bury their dead; they drag them to some distance from the camp, and leave them on the sand. It is not rare to see a hungry dog carry off a leg, a foot, or an arm, to the tents, and devour it in the sight of the relatives. There are no doctors nor hospitals. There is merely to be mentioned the village of Jardik, on the postal route, with its miserable hospital of fifteen beds. There is, indeed, a medical man attached to the administration of the Kalmucks, far from the centre of the Steppes, at Astrakhan; but this doctor's time is always occupied by violent deaths; he has not a moment left for ordinary diseases.

Determination of Sex in Utero.—"We have been informed, on good authority, that the sex of five children in this city was lately determined before birth, according to the frequency of pulsations of the fœtal heart, which are said to be more frequent in females. The children were all pronounced girls, but they all turned out to be boys. There must be something in the rule."—*Pacific Jour.*, Sept.

Deserts as Health Resorts.—At a recent meeting of the Munich Academy of Science, Professor Zittel read a paper detailing the results of observations made by him with regard to the air of the Lybian desert duing the months of January, February, March, and April, 1874, tending to prove that the air of this desert contains a very much larger amount of ozone than that of the oases, or the Nile valley. The belief that the desert air is beneficial to invalids, especially those suffering from pulmonary complaints, is of ancient origin, and, in accordance with this idea, the Kahn has recently decided to repair to Helnau, in the so-called Eastern or Arabian desert.

A Novel Revenue Question.—A curious question has lately arisen in one of the Swiss custom-houses in connection with the water from the miraculous fountain of Lourdes. The water of this holy spring is exported largely abroad, for the benefit of the faithful, and a consignment having been offered at the Basle custom-house the officers demanded the duty on medicaments. To this it was replied that the water was not a medicament in the usual sense, but only water to which the mystical power of faith alone gives medical properties. The logic of the reply is unanswerable—that the liquid was sent as a medicament to Switzerland, and was therefore subject to duty as such. With the question of its intrinsic value, the department had nothing to do, any more than with that of any other empirical remedy.

The Board of Health, in order to bring its expenditure within the limit of the appropriation for the coming year, has been obliged to reduce the salaries of the Sanitary Superintendent, Dr. W. De F. Day; the Secretary, Col. E. Clark and the Registrar of Vital Statistics Dr. E. Harris; and to dispense with the services of several inspectors, assistant inspectors and members of the vaccinating corps. The salaries of the sanitary inspectors have also been reduced from $2,000 to $1,800.

A New Malady Among Horses.—The *Detroit Post* of January 15th says a malady differing in many respects from the "Epizootic" is prevailing among horses in that city. The horse becomes weak in the legs, staggering as he walks, refuses to eat, the eye loses its lustre, the hair its glossiness, the head hangs downward and is apparently raised with considerable difficulty, and the breathing is hard and stertorous. There is, however, no swelling in the throat nor copious yellowish discharge from the nostrils, as in case of epizootic. The physicians who have investigated it generally agree that this disease is a species of influenza, which soon develops into lung fever.

Sneak Thieves.—Several thieves of both sexes are engaged in visiting the offices of physicians in this city, and we hear of numerous losses of instruments, books, clothing, etc. A woman named Helen Miller was recently arrested on a charge of grand larceny, preferred by Dr. Francis V. White, of No. 222 East Twenty-first street. She was taken before Superintendent Walling and was accused of having stolen surgical instruments valued at $80. It was afterward stated by Dr. David M. Corry, of No. 56 West Twenty-fourth street, that the prisoner answered the description of the person who robbed his office some time ago of a considerable amount of property. It is said by the police that she is an old offender. The latest thefts which have come to our notice have been in the nineteenth ward.

Weekly Bulletin of Meetings of Societies.

Monday, January 25.—Medical Society of the County of New York. Discussion of Dr. Jacobi's Paper [on Diptheria, after which Dr. Simon Fitch will show an Improved Form of Trocar, with especial reference to Ovariotomy and Aspiration.

Tuesday, January 26.—American Microscopical Society. Yorkville Medical Association.

Wednesday, January 27.—New York Pathological Society.

Thursday, January 28.—New York Medico-Legal Society, Brooklyn Pathological Society, Jersey City Pathological Society.

Friday, January 29.—Medical Library and Journal Association. "Report on the Progress of Surgery." Dr. S. B. Ward.

Original Lectures.

ON THE SYMPTOMS
OF THE
FIRST STAGE OF MORBUS COXARIUS.

By LEWIS A. SAYRE, M.D.,

PROF. ORTHOPŒDIC AND CLINICAL SURGERY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

GENTLEMEN:—The symptoms of morbus coxarius vary according to the stage in which the disease presents itself.

Ordinarily these stages are described:

I. The stage of inflammation or of limited motion, before the occurrence of effusion.

II. The stage of "apparent lengthening," or of effusion; the capsule of the joint remaining entire.

III. The stage of "shortening," or of ruptured capsule.

For the second and third stages, I prefer to use the terms *effusion* and *rupture*, rather than "apparent lengthening" and "shortening," as the latter describe only a single feature of the deformity present in each stage, while the former designate an essential pathological change which underlies a group of symptoms. What, then, are the symptoms of the *first stage?*

The symptoms of this stage are sometimes exceedingly obscure, particularly if the inflammation be of a low grade or of the chronic character generally found in those of a strumous diathesis. The first thing that attracts the attention of the patient or his friends is generally a stiffness about the joint and a limping gait, for which, perhaps, they will be unable to assign a cause. The real cause (commonly traumatic) has been forgotten in consequence of the slow and insidious approach of the disease. This stiffness of the joint is commonly noticed first in the morning when the patient gets up. After he has been about for awhile he becomes limbered up and can travel without stiffness or appreciable limp. But, even then, when he stops walking or running he will, within a minute or two, invariably stand upon the sound leg, apparently for the purpose of relieving the affected one.

Now, even at this early stage of the disease, if the patient is brought to the surgeon, a careful examination will reveal the following condition of things.

It is to be noticed, however, that, no deformity of which you are certain can be detected at this stage unless the patient is completely stripped of clothing from the waist down, and then placed in a proper position.

When the patient has been stripped, place him first in the standing position, and directly in front of you with his back towards you.

The light should fall directly upon his back, in order that you may not be deceived with regard to details of contour by any shadows. Your examination should not be hurried, for you wish to detect the disease in its very incipiency, in its most shadowy form, and that may require a little time. After watching the patient a short time you will notice that he makes a solid column of the sound leg for the purpose of receiving concussion and bearing the weight of the body, and also carefully avoid all concussion of the suspected limb. You will further notice that the suspected limb has a tendency to slight abduction and slight flexion at the knee and hip, but the feet stand parallel with each other. The natis upon the side of the lameness drops a trifle; is somewhat flattened, and the gluteo-femoral crease is lower and shallower than upon the healthy side.

This dropping of the natis is due to relaxation and gravitation of the glutial muscles while the weight of the body is thrown upon the sound leg; for the same thing obtains if the knee-joint be affected or a perfectly sound person throws his weight upon one leg.

This symptom, then, has a diagnostic value only so far as this—it indicates to us that from some cause the patient rests the weight of the body chiefly or entirely upon one limb. But from this peculiar favoring of the affected side we can often detect the incipient disease, even before a limp has been noticed. Next you will determine whether there is present any rigidity of the psoas magnus, iliacus internus or adductor muscles of the thigh; for rigidity of these muscles appears very early in the disease, and if none of them give resistance to the full performance of their normal functions, it is fair to assume that the joint is not diseased.

To make an examination for this purpose it is necessary to lay the patient upon his back upon a firm flat surface like a table or floor. This examination *must* be made upon a *solid*, flat surface. A bed or sofa or lounge, therefore, will *not* answer; for the inequalities of either will adapt themselves to the curvatures of the spine, thereby preventing you from detecting the deformity of this early period of the disease.

Before proceeding farther it is necessary to place the patient in such a position as will furnish a proper starting-point from which you may conduct your examination. Such a position is one in which the pelvis and trunk bear a normal relation to each other and is described as follows:

When the pelvis and trunk bear a normal relation to each other, a line drawn from the centre of the sternum over the umbilicus to the centre of the symphysis pubis will be crossed at right-angles by a line drawn from the anterior superior spinous process of one ilium to the other. With the pelvis and trunk in this position the thighs can be sufficiently elevated to bring the spinous process in contact with the table throughout the entire length of the spine. Ordinarily there is a slight curve of the spine at the lumbo-sacral junction when the patient is placed upon the back, but by elevating the thighs in the manner described that curve will be entirely obliterated and the spine brought straight. Now we have some standard by which to be governed.

With the trunk and pelvis in this position, then, and the spinous processes upon the table, if there is no rigidity of the psoas magnus or iliacus internus muscles, the thigh can be so extended as to bring the popliteal space in contact with the table without disturbing either. But the pelvis or spine, if any contraction is present, and the thigh is brought down in the manner indicated, when it is perhaps one-third or one-half extended, it meets with resistance and the anterior superior spinous of the ilium upon the side of the contraction drops below the other in consequence of a tilting of the pelvis. If, however, the pelvis is held firmly, while the thigh is brought down, after the psoas magnus and iliacus internus muscles have stretched as far as possible, the spine at once arches from the table or floor upon which the examination is made. This arching of the spine in many cases at this early period in the disease is so *slight* that it would be *entirely* overlooked were the examination made upon other than a *solid* flat surface.

Complete flexion at this period of the disease is also impossible. The well limb can be flexed so as to bring the knee in contact with the chest; but the diseased limb can probably be flexed only at right angle or a little more than right angle with the body, before the pelvis will be raised. The moment the pelvis begins to raise that moment you have reached the limit of flexion.

Adduction is very limited indeed. The diseased limb cannot be crossed over the opposite limb, and even by the time it has reached the median line the pelvis begins to move, showing that you have reached the extreme limit of adduction.

Abduction, particularly if the limb is slightly flexed and at the same time rotated outwards, can be carried to an extent somewhat greater than adduction, but *not to full* abduction, before the pelvis will begin to move, showing that muscular rigidity is present.

Now, in whatever position the affected limb must be held in order to bring the pelvis and trunk into a normal relation with each other, that is, so the two lines mentioned shall cross each other at right angles and the spine be upon the table or floor. Such position indicates the *deformity* present at the time of making the examination, and indicates the stage to which the disease has arrived.

In the first stage, therefore, as can be seen in these cases before you, the thigh is flexed very slightly upon the pelvis, and very slightly abducted; and, the pelvis being held *perfectly still*, very limited motion can be made at the joint, when slight extension is made upon the limb. Attempts to *extend* the limb beyond a certain point, as you now observe, tilts the pelvis; flexion beyond a certain point—in this case not quite to a right angle with the body, in other cases it may be to more than a right angle—tilts the pelvis; whereas upon the well limb extension can be made complete, and flexion complete, so as to bring the knee against the trunk.

Abduction, adduction and rotation are also limited, as you observe, and when carried beyond a certain point the pelvis at once moves with the limb, giving the boy an appearance as if complete anchylosis had taken place at the hip joint. But there is no real anchylosis present in this stage of the disease. There is anchylosis, perfect and complete to all *appearance*, but it is due simply to muscular rigidity. For by placing the hand upon the pelvis, and making a gentle extension upon the limb for a few seconds in the *line of the deformity*, motion can be made at the joint without causing pain; but the moment extension is removed limited motion causes pain, the muscles suddenly become rigid, and the child can be rolled around like a *solid* stick.

If the disease, however, has passed beyond the first stage, and effusion has taken place, then abduction is much more marked, and flexion is much stronger than the first stage, but the *peculiar* feature of the deformity then is *eversion* or *rotation* of *the foot outward*. These symptoms will be more fully considered when we come to speak of the symptoms of the *second* stage.

Another symptom of the first stage that is too often overlooked is atrophy of the thigh or entire limb. Therefore always compare the limbs by actual measurement, for the rapidity with which atrophy takes place in some cases is really surprising, and is due to the direct influence of immobility of the joint. The symptoms, as we have studied them thus far, all point to one thing, namely, fixation of the joint, restraining motion as much as possible. This will occur without the slightest recognition of pain on the part of the patient, and is due to what Mr. Barwell terms "joint sense."

The symptoms of which the *patient* will complain are tenderness and pain. Tenderness is usually well marked; although sometimes it is necessary to make a thorough examination of the joint before its presence can be detected. The disease may be situated at any part of the joint surface, and we ought, before denying the existence of tenderness, to make pressure upon every part of the head of the femur or acetabulum that could have been involved in the original injury.

This can be done by placing the thigh in all possible positions, and at the same time make pressure upon the head of the bone and the acetabulum by crowding the articular surfaces together.

In addition, pressure should be made upon the great trochanter in order to bring the head of the femur and acetabulum in contact from that direction.

Again, holding the knee with one hand and fixing the pelvis with the other, press the thigh bone upwards. This manœuvre generally causes pain, which can be detected in the patient's face, even when he denies he feels it. If the manœuvre *does* cause pain, then please observe whether or not extension relieves it. To make your examination doubly sure, if tenderness has not already been detected, sweep with the thigh its largest possible circle, by which means the head of the bone cannot possibly escape being brought in contact with every part of the acetabulum. *Pain* may or may not have been experienced during the *first* stage.

In those cases when the disease manifests itself immediately after the injury—which cases are probably either synovitis or periostitis of the great trochanter—the pain is also immediate and constant, and frequently excruciating.

In other cases, when probably the seat of the disease is in the articular lamella—either beneath the articular cartilage of the head of the bone or the acetabulum—pain is developed late in the first, or even not until the second stage.

This pain may be referred more or less definitely to the hip-joint and its surrounding tissues, or it may be so entirely located in the knee as sometimes to completely mislead the surgeon in his diagnosis. I have many times seen the knee blistered and treated for months, when there was no disease whatever at that joint, it being merely affected by the disease in the hip.

Mr. Barwell explains the knee-pain as follows: It is produced (1) by direct irritation of the nerves passing in close contiguity to the joint. These are the obturator nerves, the sciatic, the glutial and perhaps the anterior crural. It is produced (2) in consequence of an obscure sympathy between the two ends of the bone, or even direct propagation of the inflammation from one to the other; and (3) by spasm of certain muscles.

Such, gentlemen, are the symptoms by which you are to recognize hip-joint disease in the *first* stage.

No one of them is entirely diagnostic. The certainty of the diagnosis depends upon a careful consideration of *all* the symptoms described.

We have thus dwelt upon them at some length, because many of them differ from those of more advanced stages only in degree, consequently require only one description; but more especially because it is in this stage that diagnosis is most difficult and important. In the later stages, it is almost impossible not to recognize the disease, but the patient has then endured great suffering, and perhaps great mischief may have resulted, which might have been easily *prevented* had the true nature of the disease been early recognized.

* * *

THE ARMY MEDICAL STAFF RANK BILL has been favorably reported by the House Military Committee, and it will probably come before the House the coming week.

A CLINICAL LECTURE ON TYPHOID FEVER AND BRONCHO-PNEUMONIA.

DELIVERED AT BELLEVUE HOSPITAL,

By FRANCIS DELAFIELD, M.D.,

ATTENDING PHYSICIAN.

CASE I.

Gentlemen:—I will ask your attention this morning to these diseased intestines and lungs. They were taken from the body of a young woman who died in this hospital. Her stay in the hospital was short, her previous history was obscure, and her symptoms were perplexing, so that I will not occupy your time with the consideration of the clinical aspect of the case.

First, then, let us examine the intestines. You will observe that in the lower part of the ileum there are a number of large and small ulcers, corresponding in their situation to the agminated and solitary glands. These ulcers have thick edges, their walls and floors look something like granulation tissue. In some of them we see yellowish sloughs of some size still adhering to the floors of the ulcers. If you turn over the intestines and look at their external surface, you will see in and beneath the peritoneal coat, corresponding to the position of the ulcers, a number of small, rounded grayish bodies.

Such ulcers are one of the characteristic lesions of typhoid fever. In typhoid fever we find an enlargement of the agminated and solitary follicles of the ileum. This enlargement is followed by degenerative and ulcerative changes. In mild cases we find only small ulcers, involving perhaps only portions of the agminated follicles. Such have been the lesions in all the cases of typhoid fever which I have seen this fall.

In severe cases, however, the follicles attain a greater degree of enlargement, and the new growth of cells infiltrates the adjacent portions of the intestine. Instead of ulcerating subsequently, large portions of the enlarged follicles die and form sloughs of considerable size. This is the condition of affairs in the intestines of this patient.

Now, let us look at the lungs taken from the same patient. They present us with a picture of acute broncho-pneumonia, such as we rarely see in the adult. Except for their size these lungs have exactly the appearance of the lungs of a child two years old with broncho-pneumonia. The bronchi are congested and lined with muco-pus. In the lung-tissue are numerous patches of hepatization, some red, some rather purple in color. In some of the lobules of red hepatization you will notice small grayish patches about the size of a pea. These correspond to small bronchi and zones of air-cells around them.

This condition of the lungs is one of the regular complications of typhoid fever. It is apt to be a very troublesome one. Not infrequently the lung lesions assume a chronic character, and the patient develops the symptoms of pulmonary phthisis.

These lungs, therefore, may serve to illustrate to you the form of broncho-pneumonia which may complicate typhoid fever, and may also serve as an example of the early stage of one of the varieties of pulmonary phthisis.

CASE II.

In this boy, gentlemen, you may observe the results of such changes in the lungs as you have just seen, if these changes persist and become chronic. The boy, is 15 years old. His father and mother died of phthisis. He has been badly fed, badly clothed, and constantly exposed to cold and wet. For about three months he has had a cough. This cough has increased in frequency and severity, and is now attended with profuse muco-purulent expectoration. He is now feeble, emaciated, and has hectic fever with night-sweats.

If we examine his chest we find evidences of bronchitis over the whole of the right lung, together with consolidation of its upper portion.

If we could look at this boy's lung at this moment we would find just such changes as you have seen in the lungs from the typhoid fever patient—but farther advanced. The bronchitis is no longer acute—but chronic. The bronchial mucous membrane is trabeculated and the fibrous coat of the bronchi is thickened. The hepatized lobules of lung tissue are no longer only red, but some are gray and some are cheesy. There is not only an inflammatory exudation filling the air-cells, but a new growth of fibro-cellular tissue between them.

What is the prognosis in this case, and what should be the treatment?

The *Prognosis* is not very bad. The right lung only is involved, and the process does not seem to have invaded a very large portion of that.

Of course, his recovery will depend very much upon the condition in which he is placed. In the hospital, in some respects he is well off, while in other respects he is unfavorably situated with regard to recovery.

With regard to treatment in these cases, it is always to be directed both towards the lesion of the lungs, and towards the general condition of the patient.

The direct treatment of the lungs consists in making certain applications to the chest-walls. Of the various applications employed, I am very partial to dry cups, especially in the earliest stages. If we had seen this boy in the second or third week of his disease, we should have employed dry cups over the chest every day. Repeated cuppings, even now, will be very serviceable. These patients should not be cupped too hard. It is better, therefore, that you should apply the cups yourselves rather than rely upon professional nurses or cuppers. All you wish to do is to produce a free determination to the skin, without producing ecchymosis or making the skin sore. Used in this manner dry cups are useful, especially in the earlier stages; and even in the later stages are of positive benefit. It has seemed to me sometimes in adults, in cases of broncho-pneumonia in which apparently the disease was about to go on into chronic phthisis, that the disease has been cut short by the steady, persistent application of dry cups. The success attending the use of this remedy depends very much upon the attention you yourself give to its application. If you do not use cups, some other form of counter-irritation should be employed, such as blisters, iodine, croton oil, etc.

The treatment of the patient's general health is to be regulated a good deal by the condition of the stomach and bowels. If the appetite is good and the bowels regular, cod-liver oil will be of service. Sometimes great benefit will be derived from the use of the syrup of the lacto-phosphate of lime. This remedy is especially beneficial in the treatment of children.

Churchill's preparation of the hypophosphites is also valuable.

But these remedies are principally valuable in those cases in which the stomach and intestines are in good condition. If the stomach and intestines are not in good condition, the appetite poor and the bowels irregular, you must turn your attention towards these before crowding tonics, cod-liver oil, and food. For the purpose of improving the condition in this respect we may resort to the use of remedies for the improvement of the appetite, such as the mineral acids, various preparations of iron, quinine, etc.; and sometimes these remedies can be used with very great benefit. Sometimes one article will do best, sometimes another.

If there is much vomiting, as not unfrequently there is, you will find that relief can be obtained sometimes by the use of a mineral acid and sometimes by the use of an alkali. Sometimes dilute hydrocyanic acid will be of benefit. With regard to cough, if it is not troublesome let it remain untreated. If sufficiently severe to prevent sleep, and to wear upon the patient, and perhaps to cause vomiting, something must be done towards affording relief. If the cough is very severe indeed, nothing will control it except preparations of opium; but, in the use of opium, get along with as little as possible. When less severe, sometimes hydrocyanic acid will check the cough; and there are several other remedies that may be employed for the same purpose. In some cases, sanguinaria is a remedy of considerable value. It is hard to be certain as to the exact effect of this remedy; but it has appeared to me that in a case in which the bronchitis predominates over the pneumonia, the sanguinaria is a remedy of considerable value in checking the cough.

The safest method of administration is to begin with five or ten drop doses of the tincture, and gradually increase to twenty or thirty drops every three or four hours. Vomiting may be produced if large doses are used at the outset.

In such cases as this, one of the best things that can be done is to remove the patient, if possible, to a better climate. For, there is here a reasonable chance for recovery, and a change of climate would be beneficial.

In those cases where the disease is very far advanced, and one or both lungs involved to a considerable extent, change of climate is hardly to be thought of.

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A Case of Aspiration in Pericarditis with Effusion.—The above operation was recently performed in Birmingham, England, on a youth aged twenty, suffering from dyspnœa, the result of effusion in the pericardium, occurring during an attack of acute rheumatism.

The needle was passed at a point in the intercostal space, between the fourth and fifth ribs, two inches to the left of the median line. Fourteen ounces of fluid, deeply tinged with blood, were withdrawn. Immediate relief from the dyspnœa ensued, no ill effects followed the operation, and within a month the patient was able to walk about the house. The case shows the ease and safety with which the operation may be performed, and also that no unfavorable import need be attached to a free admixture of blood with the fluid withdrawn.—*The Lancet*, December 19, 1874.

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Ascarides Treated by Enemata of Cod-Liver Oil.—Five tablespoonfuls of the pure oil were prescribed by Szerlcki, as an enema, to be used twice daily. The effect of this treatment was primarily to bring away many living worms, and, after being continued for some days, to relieve the patient wholly of the itching and soreness in the perineum, and of the resulting fever, by which he had been very much reduced.—*Allg. Med. Cent. Zeit'g.*, June 20, 1874.

Original Communications.

POLYPUS OF THE UTERUS, TREATED BY THE INTERNAL ADMINISTRATION OF ERGOT.

By DANIEL F. COLLINS, M.D.,

NEW YORK.

Mrs. E. S., a short, thin woman, of sallow complexion, and the mother of four children, sent for me to attend her, as she said, for a "womb trouble." On calling, I found her exhausted from uterine hæmorrhage and in a very dangerous condition.

In answer to my questions, she stated that she was sick and in delicate health for the past six months, and had suffered a great deal from "flooding," and that these attacks generally came on every eight or ten days. But for the last two months she lost more or less blood all the time.

Having checked the hæmorrhage I left, promising to call the following day.

On calling next morning I found her free from any symptom of flooding, but in a very weak condition. On introducing my finger through the os uteri, I found at the upper and posterior portion of the organ a round substance or tumor about the size of a small orange; passing my finger around it I found it was impossible to pass even the point of my finger between the base of the tumor and the side of the womb, and that the tumor seemed to be closely attached to the wall of the uterus. The patient being very weak and nervous from loss of blood, I deferred further examination until next morning, which further examination satisfied my mind that it was impossible to remove the tumor *in its present* condition and relation to the uterine wall without a considerable and dangerous loss of blood, which, considering the weak and exhausted condition of my patient, I did not feel justified in risking.

After a consideration of the case, I decided on giving moderate doses of ergot in combination with a little opium, in order to bring on such contractions of the uterus as would separate the polypus or tumor from the uterine wall, sufficiently for me to either strangulate the tumor or remove by excision.

On paying my visit next morning, the patient complained of "bearing down pains," and said that she suffered as much as if she were in the beginning of labor.

On making an examination I at first found considerable difficulty in introducing my finger through the os, owing in the first place to the state of contraction the uterus was in, and secondly to the tumor pressing down from the fundus of the womb, and as if blocking up the passage.

On succeeding in introducing my finger, I found that the body of the tumor or polypus had entirely separated from the wall of the uterus, and was but now held by a small pedicle about three quarters of an inch in length, by a little less than half an inch in diameter.

After a careful examination I could find no trace of pulsation in the pedicle, but found it soft, and to the touch not unlike that of the umbilical cord.

Taking a gentle but firm hold of the polypus, I turned it round and round several times and then withdrew my hand.

After cautioning my patient against any unnecessary exertion, and telling her to send for me if there was any change in her condition, I left.

On the following morning I found on examination that the pedicle had softened a good deal owing to the twisting the previous day, and discovering no trace of pulsation in it I at once passed up a curved blunt-pointed scissors, and with one clip severed the connection between the polypus and the wall of the uterus. I immediately gave the patient a dose of ergot which brought on firm contractions in a short time. The polypus was expelled, the patient not having lost a teaspoonful of blood.

The polypus was of fibroid character and measured two and one half inches long by two and one quarter inches in diameter, and was hollow, containing a lot of grumous blood.

The patient rapidly recovered and is now strong and healthy, has had no hemorrhage since the removal of the polypus, and is quite free from "womb trouble."

Having examined several of the latest works on uterine diseases, I cannot find in any of them any allusion to the exhibition of ergot in cases similar to the above. That is, giving ergot as a means for separating, as far as its attachments will allow, the body of a tumor or polypus from the wall of the womb before removal.

Churchill, in his treatise on the diseases of women, says, in speaking of the treatment of "polypus of the uterus:" "In order to hasten the expulsion of the polypus through the os uteri, it will be advisable to give ergot; and more especially as, even if there be no polypus, its effects in restraining the hemorrhage will be beneficial. If the polypus appear and disappear, we may employ ergot, and at its reappearance fix it with Museux forceps and draw it down and tie it." In the above quotation, ergot is advised to be used simply to hasten the expulsion of the tumor, the forceps being recommended as a means of drawing the tumor down.

McClintoch, in his work on the diseases of women, makes no mention of ergot as a means of lengthening the neck of a polypus before removal, or for separating the tumor as far as possible from the uterine wall.

Another question that presents itself in considering the above case is—In many of the cases that are treated as fibroid tumors of the uterus, in which the physician finds the tumor firmly and closely attached to the wall of the uterus, and almost imbedded in it: would not the careful use of ergot in many of these cases, change our diagnosis from that of fibroid tumor to simple polypus, and consequently alter our treatment in many cases, from giving temporary relief and using palliative measures, to a permanent cure by the removal of the morbid growth?

That the judicious use of ergot itself or in combination with opium will, in a large number of cases, materially help and simplify the operation of removal I have little doubt. It will do so by producing sufficient artificial contraction of the uterus to enable that organ to separate, as far as its attachments will permit, the morbid growth from its walls. In doing so, the danger of including a portion of the wall of the uterus is removed, or at least greatly lessened, and in many cases a dangerous hemorrhage avoided.

246 E. THIRTY-FOURTH ST., N. Y.

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A MEXICAN MEDICAL JOURNAL.—"*Repertorio Jalisciense Medècina y Cirurgia Practicas*" is the title of a new semi-monthly medical journal which makes its appearance in Mexico under the editorial management of Sénors Clement, J. Garcianiege, and N. Puga; being published in the city of Guadalajara, in the State of Jalisco.

A CASE OF POISONING BY STRYCHNIA,

SUCCESSFULLY TREATED WITH

CHLOROFORM AND CANNABIS INDICA.

By LAWRENCE JOHNSON, M. D.,

NEW YORK.

AT about 8 P.M., Sept. 29th, 1874, A. A. R., a healthy young man, aged twenty-two, with suicidal intent, swallowed five or six grains of strychnia in a glass of soda-water. He had obtained it of a druggist upon the pretence of wishing to poison rats; and the druggist informed us of the quantity furnished.

I was called to see him about fifteen or twenty minutes later; found him half-reclining upon a chair, being held in that position by a man on either side. He was in violent tetanic convulsions, every muscle seeming to participate, his face livid, and frothy saliva flowing from the mouth. I immediately sent for chloroform, which was procured in about five minutes, and having laid the patient upon the floor, proceeded at once to administer it to him by inhalation. He passed under the anæsthetic influence rapidly, and simultaneously his convulsions ceased.

About this time Drs. Wm. C. McFarland and T. L. Janeway arrived, and we consulted together. We concluded to continue the chloroform, allowing a brief respite now and then to note the effect of its suspension.

During one of these intervals shortly afterward, our patient opened his eyes and spoke, asking for drink, etc. Giving him water, he drank it, but with difficulty, the exertion bringing on a convulsion. With the idea of getting rid of any of the poison remaining in the stomach, we gave him two doses of sulphate of zinc, grs. xv. each, at within about ten minutes of each other. Shortly afterward he vomited freely, ejecting a large quantity of liquid, together with some undigested food. During the whole of this time every effort at swallowing was accompanied or followed by convulsions, as was nearly every voluntary movement, or even a current of air blowing over him, and consequently he was kept steadily under the influence of chloroform to a greater or less extent. At 10 P.M. the convulsions continuing whenever chloroform was suspended, we gave ʒ i tr. cannabis indica, and ten minutes later another dose of like quantity. Soon afterward he vomited. Half an hour later another dose of ʒ i was given, and two more at intervals of half an hour and one hour, all of which were retained. The convulsions meanwhile diminished in frequency and force, and chloroform was only resorted to when they occurred. After 11 o'clock convulsions seldom occurred spontaneously, for the most part being directly induced by voluntary movements upon his part or by his attendants accidentally touching him. At 1 A.M. we considered him out of danger and left him for the night.

He had but one convulsion after our departure—at 3 P.M., and at 9 A.M. we found him able to walk to his home, half a block distant.

How much of our success should be attributed to chloroform and how much to cannabis indica is of course a matter of conjecture. That sufficient strychnia had been absorbed to produce death I think the violence of the initiatory symptoms warrant us in assuming. Then chloroform in the first instance assuredly saved life. Yet inasmuch as there seemed no permanent improvement until cannabis indica was administered, while after that time the gain was rapid, I think the conclusion that its action was that of an antidote a very reasonable one. To us who watched this case very carefully the conviction is as strong as could be made by a solitary example.

REPORT OF THE LYING-IN SERVICE AT CHARITY HOSPITAL, BLACKWELL'S ISLAND, FOR THE YEAR 1874.

By ROBERT WATTS, M.D.,
One of the Visiting Physicians.

Of the numerous changes made in the hospitals under their care by the late Board of Commissioners of Public Charities and Correction, one of the most important was the closing of the lying-in service at Bellevue and the transfer of all lying-in women to Charity Hospital.

The closing of the service at Bellevue had become a necessity, for the mortality among lying-in women, which for several years had been large, became in the early months of 1874 so alarming as to compel the Commissioners to find another place for the treatment of this class of cases, and at the suggestion of the Medical Board of Charity Hospital they decided to transfer all the waiting women then in Bellevue to Charity, and to send all pregnant women applying for relief thereafter to the same hospital.

This change was regarded unfavorably by many members of the profession, and by the public, who thought it was simply a change of location which did not insure any more safety for the patients than was afforded at Bellevue; and it was consequently made with some apprehension.

That these fears were groundless the results, we think, have demonstrated, and as these results have been even more favorable than we dared to expect, they are now published in the hope that they may prove of interest.

The wards in Charity, four in number, which were assigned for the lying-in service are situated on the top floor of the west wing of the building and have windows opening to the north and south. Occupying the whole of the top floor of that wing, they are entirely separated from the rest of the hospital.

The records of the hospital show a total of 431 lying-in patients for the year ending January 1st, 1875, of whom 23 were confined outside and afterwards brought to the hospital. The mortality for the year was 11, or one death in $39\frac{2}{11}$ cases.

During the year the following obstetrical operations were performed:

Application of forceps	10
Cephalotripsy	1
Version	2

The accompanying table shows the number of confinements, of primiparous labors and of death for each month and also whether the mothers were married or single.

Table I.—Total Number of Lying-in Patients in Charity Hospital during 1874.

Months.	No. of Confinement.	Married.	Single.	Primiparæ.	Multiparæ.	Died.	Confined outside.
January	20	8	12	7	13	1	
February	13	7	6	6	7	1	
March	14	4	10	9	5		
April	16	4	12	5	11		
May	29	14	15	15	14	3	
June	38	21	17	15	23		1
July	37	20	17	14	23	1	1
August	51	38	13	17	34		3
September	65	39	26	43	22	2	9
October	52	28	24	25	27	1	2
November	57	32	25	29	28		4
December	39	21	18	19	20	2	3
Total	431	236	195	204	227	11	23

On the 11th of June, 1874, the lying-in wards at Bellevue were closed, and twenty-three waiting-women were transferred to Charity. It was not deemed safe to put these with the waiting-women in the main building, and they were consequently put in a pavilion to the south of the hospital proper.

Of these twenty-three women fourteen were single, nine married. They had come directly from the infected wards of Bellevue, and, although the temperature of all those who were confined in there the first two weeks after their removal averaged considerably higher than in the patients who had not been in Bellevue, no case of puerperal fever occurred among them.

During the year there occurred fourteen cases of puerperal diseases, of which eleven died and three recovered.

By reference to the tables in an article published by Dr. Wm. T. Lusk in the August number of the *New York Medical Journal*, page 158, it will be seen that there occurred in Bellevue during the year 1873, out of 449 confinements, thirty-one cases of puerperal diseases which could fairly be attributed to hospital influences.

Table II.—Total Number of Deaths from Puerperal Diseases in Charity Hospital during 1874.

No.	Date.	Name.	Age.	Social condition.	Primiparæ.	Multiparæ.	Character of labor.	Cause of Death.	Remarks.
1	Jan. 5	E. W.	33	S.		M.	Normal.	Convulsions.	
2	Feb. 8	K. M.	20	S.	P.		Normal.	Post partum hemorrhage.	
3	May 14	E O'C.	23	M.		M.	Version.	Puerperal Fever.	Transverse present justo minor pelvis.
4	May 19	M. R.	23	M.		M.	Normal.	Peritonitis.	
5	May 25	J. B.	28	W.		M.	Normal.	Peritonitis.	
6	July 7	K. R.	25	M.	P.		Forceps.	Peritonitis.	Tedious labor.
7	Sept. 24	A. McD.	30	M.		M.	Forceps.	Peritonitis.	Tedious labor.
8	Sept. 29	R. F.	25	S	P.		Cephalotripsy.	Convulsions.	Pelvic tumor, was in med. ward for Bright's disease.
9	Oct. 3	A. S.	17	S.	P.		Normal.	Convulsions.	
10	Dec. 17	M. M.	20	S.	P.		Normal.	Peritonitis.	Delivered on steamboat. Had been in labor some hours, and was brought into hospital moribund.
11	Dec. 31	P. R.	38	S.		M.	Forceps.	Œdema of lungs	

A proportion of 1 to $14\frac{15}{31}$, with a mortality of one to thirty. If the statistics of the lying-in service at Bellevue for 1874 up to the time of its close were published, they would show an enormously increased ratio both of puerperal diseases and of deaths.

An analysis of Tables II. and III. preceding shows that out of the fourteen cases of puerperal diseases occurring in Charity during 1874 only seven can be attributed to any septic influences existing in the hospital. A proportion of 1 to $61\frac{4}{7}$, while of deaths attributed to similar causes there were only six, a proportion of 1 to $71\frac{5}{6}$.

TABLE III.—TOTAL NUMBER OF PUERPERAL DISEASES IN CHARITY HOSPITAL, IN 1874, FROM WHICH PATIENT RECOVERED.

No.	Date.	Name.	Age.	Social condition.	Primiparæ.	Multiparæ.	Character of labor.	Disease.	Remarks.
1	Mar. 14	L. K.	30	M.		M.	Normal.	Convulsions.	
2	May 9	N. D.	21	S.	P.		Normal.	Puerp. Fever.	
3	Sept. 4	J. R.	17	M.	P.		Normal.	Remit. Fever.	

The death rate from puerperal diseases among primiparous women in Bellevue and Charity shows a marked contrast between the two hospitals, for while in Bellevue it "rose to five and a half per cent.," in Charity it was only one per cent.

From these figures it seems evident that the large amount of puerperal diseases occurring in Bellevue was attributable to poisonous influences existing in the hospital, and not, as Dr. Lusk intimates, to the social condition of the patients.

In conclusion, we desire to correct an error in Dr. Lusk's paper, wherein he speaks, page 159, of the "closure of Charity Hospital to this class of cases in 1869, on account of its having been visited by a severe epidemic of puerperal fever," and again on page 164, "in 1871 it" (meaning Charity) "had to be closed on account of puerperal fever." Since the establishment of a lying-in service in Charity in 1869 the service has never been closed, nor has the hospital ever been visited by a "severe epidemic of puerperal fever." The immediate transfer of all the other lying-in women from a ward in which a case of puerperal fever has developed to a ward in another part of the building has enabled us, thus far, to prevent the spread of the disease and avoid anything approaching in severity to the dignity of an epidemic.

Progress of Medical Science.

THE ADVANTAGES AND DISADVANTAGES OF ESMARCH'S BLOODLESS METHOD.—A paper on this new method was recently read before the County Medical Society, by Dr. Henry B. Sands. The object of the paper was to give a summary of the operations in which it was employed, in the city of New York and its vicinity, during the first year of its trial here, and in connection with the results obtained to devise an estimate of the value of the method. The record of instances in which it was employed comprised a list of 143 cases, tabulated so as to indicate the nature of the operation, and, in the fatal cases, the cause of death. Upon the whole, the experience appears to have been very favorable to the new method. In the only instances where evil results seemed to have been due to the application of the elastic bandage, they were more fairly attributable to the mode of its application than to the method itself. It was stated that certain advantages of the method were unquestionable. As to its bloodless character, Dr. Sands regards it as almost perfect, and says that there is only a loss of a few drops of blood during the operation, and the loss of blood from oozing which occurs after the constricting band has been removed is far less than the gain by this new method over the older method. After the completion of the operation, the patient has often a relatively greater supply of blood in his body than before the operation was commenced. An interesting point alluded to in this connection is the apparent impunity with which the vascular system suffers this sudden increase or tension. It is, however, suggested, that in case of thoracic or abdominal disease the sudden distension of the vessels with blood may possibly be attended with danger.

Besides the immediate advantage to the patient of the bloodless operation, the method becomes of vast service to the surgeon under circumstances where deep dissections are necessary, as for the removal of tumors or foreign bodies, or in searching for a deeply-seated wounded vessel. Under these circumstances a clear and unobstructed view of the tissues that come under the knife is very desirable. While the parts are stained and obscured by blood, important structures may easily be wounded or injured, which, with the aid of Esmarch's apparatus, might be safely avoided. This, however, does not wholly apply to the blood-vessels, their emptiness rendering them somewhat difficult to be recognized. As a precaution, therefore, it is advised that the operator "make good use of his anatomical knowledge, and study the appearance of the tissues before he divides them."

There is another use to which Esmarch's apparatus might be put, as observed by the writer, viz.: in those cases where compound fractures are attended with free hemorrhage, and it is suggested that were ambulance surgeons and those in charge of the police stations supplied with the apparatus, it would frequently be the means of saving life.

The possible disadvantages of the bloodless method are considered under the heads of sloughing, secondary hemorrhage and paralysis. These mishaps all occurred in the cases collected, and in several instances were clearly due to the employment of Esmarch's method. Still in each of these instances there was reason to suppose that the method had not been properly applied. With regard to the applicability of the bandage, it was observed that it is desirable to abstain from its employment in certain cases, and above all to learn the minimum degree of pressure that will accomplish the desired result. The bandage should be soft and highly elastic, and the constriction of the limb should be made either by a piece of the same material, or, where this would be too wide, by a piece of soft rubber tubing. The solid cord should, he thinks, be abandoned, as likely to do mischief. The constriction should also not be applied for a longer time than absolutely necessary, the danger probably increasing with the length of time the pressure is continued.

The Remedial Use of Water.—The use of cold water as a therapeutic agent was made the subject of much study and research in the latter part of the last century by James Currie. His investigations were embraced in a book of two volumes, which at the time of its publication created no little interest, but has since fallen into comparative oblivion. Recently, however, the views which were then expressed have been revived, and Liebermeister, in his article on "Typhoid Fever," in *The Cyclopædia of the Practice of Medicine*, refers to Currie as the first who used the cold water treatment systematically and according to certain clear indications in febrile affection. In the last number of *The American Practitioner*, Dr. Austin Flint gives an analysis of Currie's work, making it the basis of a very interesting article on "The Remedial Use of Water."

As is well known, the cold water treatment has been more in vogue in Germany than elsewhere, but its employment has been gradually extending, and Dr. Flint thinks that he discovers indications that it will soon become much more general. "One tendency of the popular mind," he observes, "towards the potency of water as a remedy for the past twenty years or longer, dating from the rude empiricism of Priessnitz, has in some measure prefaced the way for its regular and scientific employment. It has been obvious that the so-called "water cures," and "hydropathic institutions," in which routine methods of treatment are employed, conducted often by ignorant men without discrimination, nevertheless do good, together with much harm; in other words, beneficial results are obtained in a certain proportion of cases. Hence some establishments in which water is recognized as a prominent remedial agent are now under regular medical direction, and hydropathy may be said to have become in a certain sense legitimated."

At the present day the advocates of cold water treatment employ it for its antipyretic effect only. It is solely for the purpose of reducing the excessive heat of the body, which is now regarded, not as an effect merely of the internal disorder, as Currie thought, but as of itself capable of doing great damage to the system, and as a cause *per se* of serious structural derangements and even of death. The abstraction of heat from the body therefore is a great desideratum in fever, and the application of cold water to the heated surface has this object simply in view. Currie, also, on the other hand, believed in a certain remedial effect that was due to the sudden impression upon the nervous system, and therefore he preferred affusion as the mode of application.

A large portion of Dr. Flint's article is occupied by an abstract of Currie's experience as related in his book. The time devoted to this work appears by no means misspent. Little that the book contains would seem antiquated in the most advanced literature of modern therapeusis. Indeed, in one respect it would appear that Currie's art was in advance of modern methods of treatment. We are apt to be content if we succeed in a measure in abating the intensity or danger of a fever, but Currie aimed—and apparently with no little success—to cut the disease short. The contrast in this respect is striking, and suggests the inquiry whether it may not be true that the use of water by affusion has a potency as an abortive measure of treatment which does not belong to the bath. Finally, the use of the cold bath after the practice of Liebermeister and others of the German school at this day is as much at variance with—or, if the expression be admissible, in advance of—the usual treatment of the essential fevers and acute inflammations as was the employment of cold affusions in Currie's time.

Dr. Flint also refers to the use of the wet-pack, and in this connection mentions a method of its employment which he has found advantageous. The patient is wrapped in the sheet saturated with cold water in the usual manner, and then as often as the covering becomes warmed through the heat of the body the cold water is again sprinkled over it from an ordinary watering pot. This is continued until the thermometer registers the desired temperature. The experience with this method was mainly obtained from its use in a large number of cases of sun-stroke at Bellevue Hospital during the summer of 1872.

In conclusion, some interesting observations are made with regard to the remedial use of water internally. The suggestion is thrown out that possibly no little share of the benefit derived from the mineral waters is due to the ingestion of large quantities of water. It would have been interesting had Dr. Flint enlarged somewhat more upon this point. Finally, allusion is made to the potency of water, used internally to promote the secretion of urine in renal disease, and he relates a case of tubal nephritis with convulsions, which was apparently quite cured by that means.

A Mode of Reducing Strangulated Hernia.—In a recent number of *La France Médicale* it is reported that the following method was adopted by Perrin as a novel procedure in the case of an inguino-scrotal hernia, which had become strangulated, and in which serious symptoms had already shown themselves. Taxis had been thoroughly tried under an anæsthetic, but without success. An attendant was therefore directed to take hold of the patient's legs, and placing them on his shoulders to raise him up until he rested only upon the shoulders and head. The body being thus very strongly flexed forwards, the integuments of the abdomen became so relaxed that Perrin was able by manipulation to reduce the hernia to one-half its former volume, by the return of the fluid which the sac had contained, into the peritoneal cavity. The patient was then placed in the horizontal position, and the gut was completely restored. There is hardly any novelty, however, in this operation, for American surgeons, have practised it in repeated instances.

Penghawar Djambi as a Styptic.—This plant is a native of China and the East Indies. It belongs to the order of ferns, and is said to have styptic qualities. The parts used for this purpose are the hairy raments found on the backs of the stems and fronds, Dr. Hainze, in referring to its use, says that he has employed it exclusively to arrest the excessive bleeding from leech-bites or after phlebotomy, but he also relates a case of hemorrhage from the temporal artery, and another from the anterior tibial, where a pledget of the penghawar promptly stopped the flow, though for twenty-four hours previously various other means had been ineffectual. He attributes its styptic character to the fact that the blood in passing through the hairy fibres is entangled by them. Vogl, on the other hand, believes that it owes its character to the fact that the alkaline and watery elements of the blood are taken up by the fibres, which then become swollen. Schroff believes that the paleæ of *cibotium glaucum*, another and very similar form, known in the Sandwich Islands as *polu*, and exported in large quantities as material for stuffing cushions, would probably answer the same purpose and be cheaper.—*Aertzl. Corr-blatt.*, *Rundschau*, Nov., 1874.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE VALUE OF AMERICAN DIPLOMAS.

In a recent number of the London *Lancet* is an editorial upon the subject of medical education in this country. The whole tenor of the article is so calculated to give a false impression of our systems of instruction, and the real value of our recognized diplomas, that we feel called upon, in the interests of American medicine, to offer a word or two of explanation. We are surprised that a journal of the standing of the one in question should allow itself to be so thoroughly misled in questions of fact which should be palpable to every one at all conversant with our systems. A few bogus diplomas, claiming to come from America, have been discovered in Great Britain, and this circumstance furnishes the text for a high-toned moral sermon on the value of our diplomas generally. While admitting that there must be much admirable teaching in the United States, the inference is, however, very clear that, in the opinion of our cotemporary, the majority of American diplomas are bought and sold like any other marketable commodity, and that the greater number of these guarantees of medical education "bear no comparison even with the lowest of our British qualifications." We do not claim that we are perfect in our system of medical education, we acknowledge that there is great room for improvement, that many of our colleges are not as strict as they might be, but we are not prepared to admit that we encourage fraud, abet swindling, or countenance forgery.

To presume to hold the profession of America accountable for the action of a few scoundrels, is simply ridiculous, and were it not for the animus shown would be unworthy of notice. *The Lancet* knows full well that we have many admirable medical schools, that the profession here is keenly alive to all the requirements which should constitute a first class medical education, and that the schools themselves not only vie with each other in raising the standard of medical teaching, but are jealous of the distinction of leading the van. These are palpable facts, an ignorance of which is a reflection upon the ordinary common sense of any writer who attempts to sit in judgment upon our actions, or presumes to impugn our motives. As a profession we are very jealous of the value of our diplomas, and no body of men in this country were more active in exposing the shameless, abominable and outrageous frauds of the diploma traffic by the bogus college in Philadelphia, and none were more instrumental in depriving that institution of its charter.

With our system of government we cannot prevent swindlers of any class from imposing upon the public, and if some of the tricks of those individuals take with some of our British cousins, we are always ready to pity their stupidity and warn them in future. This is an act of ordinary charity to people who will persist in becoming the easy prey of a few sharpers. The knowledge displayed of some of our American schools is quite amusing, and is in keeping with the general information concerning medical matters in this country. The Medical department of Yale College is referred to as "the Yale University, Massachusetts," and the College of Physicians and Surgeons of this city as "the New York Columbia University" (!) There may be an institution of that sort in this city which can grant diplomas recognized by our British friend, but we are ignorant of it.

It is very true that our colleges are quite numerous; that they are self-constituted corporations; that, technically speaking, we have no legal enactments, which hold these institutions accountable for the qualifications of their graduates. Experience has shown that it is useless to ask any legislature to fix the standard of such qualifications. The profession, however, has made a standard of its own, and has refused to recognize colleges which do not give a thorough course of instruction to its students, and which do not demand, at the end of a period of three years' study, a thorough examination. The number of these medical colleges so recognized by the American Medical Association can be seen by a reference to our advertising columns. A diploma from any of these institutions is accepted by the profession as the guarantee of a good medical education. To obtain a diploma from recognized schools of medicine by fraud is a simple impossibility. Although we have said this again and again, we will repeat it for the benefit of such as persist in being ignorant of the fact. We cannot prevent the people from employing quacks. The responsibility for so doing rests with them, not with us. The inability to prevent quackery outside of our ranks by no means implies that we encourage it.

Reference is made in the article in question to the operation of the new law regulating the practice of medicine and surgery in this State. This law is by no means a perfect one, and the majority of the profession are not in favor of it. The intention of the framers was to prevent quackery in some of its more glaring forms. In our own county it has accomplished some good. The board of censors of every county society is empowered to examine every one throughout the State practising without a diploma. In this county alone seventy have been thus examined, and only six passed a satisfactory examination. The successful candidates are not made licentiates of their different county societies, but only receive a certificate of satisfactory examination from the censors. It is not our purpose to discuss, at this time, the general merits or demerits of the law, but merely to state a question of fact bearing upon the general subject of medical qualification in America.

CHANGE OF TIME AND PLACE FOR THE MEETING OF THE STATE SOCIETY.

We have repeatedly called the attention of those of our readers who are interested in attending the State Society, to the necessity of changing the time of meeting. Two years or more ago the feasibility of such a plan was left to a committee, which reported in its favor, giving at the same time the reason upon which its opinion was founded. The matter was made the special order of business for a certain evening, and while every one appeared to be in favor of a change of time, no one seemed ready to come to any definite conclusion, until one gentleman suggested that such a change might interfere with the legislative business of the Society, or rather with that business of the Society which necessitated the presentation of proposed laws, resolutions, etc., to the Legislature while in session.

If such an objection ever had any weight it is certainly removed at present. The sentiment of the Society is now so entirely adverse to any attempt to secure legislative interference in behalf of itself or of the profession, that it does not even ask the Legislature to publish its transactions. We have declared our entire independence of any such aid, and the advantage of having our meeting at the present time amounts to nothing. This has heretofore been the only argument in favor of holding the annual meeting at the most inclement season of the year, at the time when the most of our medical teachers are actively engaged with their classes, when most of our practitioners are absorbed in the duties of the sickliest season of the year, and last, but not least, when on account of the session of the Legislature, the annual meeting of the Masonic and other associations, the hotels of Albany are in their most crowded condition.

We do not undertake to name the precise time of the year when the meeting could be held with the greatest advantage to the members, but we do venture to say that a more unfavorable season could not have been selected. Prof. White, in his inaugural address delivered in 1870, gave some very good reasons for changing the time to the early fall, and we take occasion to quote them in this connection for the consideration of the members at the next session.

"The fall season presents more advantages than any other, as a time for the annual meeting. There is, as a rule, a comparatively healthy period in the latter part of September, when practitioners will find it more convenient to be absent from their patients, than in the busy season of winter. Then travel is more agreeable and easy, the hotels in Albany are not overcrowded, and there would be a better choice for rooms of assemblage."

The committee appointed in 1873 to report on changing the time of meeting, recommended that season, but for reasons already stated the report was, in the hurry of more pressing business, consigned to the table without being fairly discussed, and with but one objection urged against its adoption. We are glad to learn from the President of the Society, Dr. Fisher, of Sing Sing, that he intends, in his inaugural, to advocate the change, and this action on his part will be the best possible excuse for the Society to take up the matter afresh in the regular way of a report of the committee on the President's address. We believe every member in the State is ready for the question, and it is hoped that the matter will be settled at the coming session. If there is once a decision by the Society there will be no possible difficulty in obtaining legislative sanction, for in reality it is a matter of supreme indifference to them when we meet, how we meet, or where we meet.

Having said thus much in regard to changing the time of meeting, we have a remark or two to offer in favor of a change of place for the meeting. There being no further necessity for pinning ourselves to the apron-string of the Legislature, there is in reality no necessity for meeting in Albany. It is true that city has furnished us with a goodly number of presidents, vice-presidents, permanent members, receptions, suppers, secretaries, executive committees, and publication committees, until we begin to think that nothing can be done for the Society unless it is accomplished there. In fact, some evil-disposed members who do not live in Albany have said some cruel things of an Albany ring, but these malcontents forget that they have forced the Albanians to take on the management of the Society, and, far from finding fault, should give them the credit of managing it exceedingly well. But the question comes up at this time, whether these gentlemen have not already done enough to merit the everlasting gratitude of the Society, whether it would not be magnanimous, to say the least, to make a change. We are, in view of the necessities of the situation, decidedly of such an opinion. We are not in favor of any particular city for a permanent meeting place, but believe that New York should be the headquarters. There is hardly a member of the Society living outside of Albany who would not wish to meet at least once every other year in this city, who would not take more pleasure in visiting our hospitals, libraries and colleges, than in a supper at the Delavan or a reception by the Governor. Is it any longer necessary to have a committee of publication from Albany? Can the transactions be published in no other place so promptly or so well? If so, we are willing to admit that there is no necessity for any change. The committee whose duty it will be to nominate officers for the ensuing year should give these matters their consideration. We do not see any objection to meeting every other year in the different large cities of the State. This would certainly be agreeable to the majority of the members, especially if the time of meeting is changed to the fall. In conclusion, we believe we are warranted in saying again, that the "Society is ready for the question."

SCHOOL HYGIENE.

SUPERINTENDENT KIDDLE in his last annual report, thus speaks of the sanitary condition of our public schools:—

> "Too little regard has been had to the space which should be allotted to each pupil in the construction of the school buildings, with a view to both comfort and ventilation. In many class-rooms of the primary departments and schools, only about thirty cubic feet of air to each pupil is possible to be given, even with all the windows and doors open. In some recitation-rooms only forty or fifty cubic feet is afforded. The sole consideration in furnishing the school-rooms seems to have been in these cases to crowd as many seats together as possible. Serious maladies are frequently contracted by the pupils in these schools, because of the necessity of opening the windows even in the coolest weather. There should be, in all grades of pupils, a uniformity of treatment, mental, physical, and moral: but the fact exists that the pupils of grammar schools are furnished, in nearly all the school buildings from one hundred to one hundred and fifty cubic feet of air per pupil."

This looks very much like waking up to the necessities of the occasion. It would, however, be strange indeed if, after so much exposure of the insanitary condition of our schools the Superintendent did not force himself to say something upon the subject, and make some suggestion. Here is a report of progress. The next thing is to re-establish sanitary inspection. But under the existing circumstances this is a very hard thing for the Board to do. Probably the only excuse now is, that such a course would be the violation of one of its principles.

ONE DISADVANTAGE IN TRANSFERRING LABOR CASES TO CHARITY HOSPITAL.

THE necessity for a Maternity Hospital, located in the city, is now more apparent than ever. The interference with navigation, caused by the ice which collects in the East River, threatens at times to cut off all communication with Charity Hospital for hours together. When the wards of Bellevue Hospital were open to obstetrical cases, the so-called "street cases," or those coming into the hospital after labor had already commenced, formed a considerable proportion of the whole number. From the hardships which they had endured, or the unavoidable delays in their admission, these patients were, in many instances, the ones whose death gave so unfavorable a coloring to the hospital statistics, or by their unhealthy conditions contributed in no insignificant degree to the unhealthfulness of its wards. The need for medical attendance at the earliest possible moment caused the Medical Board of Charity Hospital, some time since, to detail one of the House Staff to receive obstetrical cases at the dock-house, at the foot of Twenty-sixth street, but even this has not prevented patients dying *in transitu*, or while awaiting at the dock the tardy and infrequent means for communicating with the Island.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 21, 1875.

DR. AUSTIN FLINT, PRESIDENT, in the Chair.

MINUTES of last meeting were read and approved. The President's address upon retiring from office was next in order. It came like words fitly spoken, and was listened to with marked attention.

The circumstances and events which have characterized the transactions of the Academy during the last two years were briefly recounted. Reference was especially made to the arrangements that have been completed for placing papers read before the Academy in the hands of the printer as soon as the Council has passed upon them. In this way the papers can be given to the profession early, and the medical journals in which they may subsequently be published can give due credit to them as coming from the transactions of the Academy.

Reference was made, in congratulatory terms, to the fact that a building had been secured for the Academy and the profession of the city.

The propriety of holding weekly meetings of the Academy was suggested, with the view of giving more time to the discussion of papers that might be read.

At the close of the address Dr. Flint retired from the office of President of the Academy, by presenting a copy of the by-laws to the newly-elected President,

Dr. Samuel S. Purple.

DR. PURPLE then delivered his inaugural address. The Doctor first made quite extended reference to the objects contemplated in the organization of the Academy, and closed with the following special recommendations:

First, That a sinking fund should be created at once for the purpose of meeting the debt just incurred by the Academy.

Second, That an effort be made to establish a medical library. This was once made in that direction, as far back as 1847, but one probable reason of its failure was the lack of a proper room in which it could be placed. That obstacle was now overcome by the purchase of a house for the Academy. He suggested that the formation of a committee be referred to the Council, and believed that another effort in this direction would be crowned with success. At the close of the address,

DR. VANKLEEK offered the following resolutions:

Resolved, That the thanks of the Academy of Medicine are eminently due and are hereby tendered to our retiring President, for the able, dignified, impartial and satisfactory manner in which he has discharged the duties of his office during the past two years. Unanimously adopted.

Resolved, that the suggestions and recommendations embraced in the addresses of the evening delivered by the late and present President of the Academy be the same, and hereby referred to the Council. Adopted.

Dr. Austin Flint offered the following:

Whereas, The Council of the Academy did at their last meeting approve of the transfer of the building fund now held in custody by the Trustees, to the Committee of Ways and Means: be it

Resolved, That the Trustees be hereby authorized and directed to transfer the whole amount of the building fund to the Committee of Ways and Means, to be used for the specific purpose of purchasing a building for the Academy upon West Thirty-first Street, in the city of New York. Adopted.

Dr. Anderson hoped those who had subscribed and had not paid their dues, would be kind enough to attend to the matter early, and pay to the Treasurer of the Committee of Ways and Means the amount of their subscription, as a payment must be made upon the first of February next.

Icthyosis of the Tongue.

Dr. Wier then read a paper upon "Icthyosis of the Tongue." The disease possesses some interest because of its surgical relation to epithelioma of the tongue.

The doctor gave a brief historical account of the disease reaching as far back as 1837, embracing the history of fifty-eight cases. To these were added ten cases, part of which had fallen under his own observation, and part had been furnished him by his professional friends. One was noted as being the only one upon record in which this disease was seen upon the vulva.

Some of the cases were associated with the habit of smoking, some were not: some were associated with syphilis, and some were not; and some of the cases occurred in persons with a psoriate diathesis.

Between icthyosis simplex and icthyosis syphilitica, he was not able to draw any reliable diagnostic lines.

With regard to treatment: caustics are used and are not used, they were perhaps of doubtful efficacy; alkalies in the form of spray seemed to be sometimes serviceable; and some urged excision of the tongue.

Dr. Weber remarked that he regarded it as important to distinguish between the simple cases and the syphilitic variety, because observations at the clinique of Thiersch had led him to the conclusion that it was only the simple cases that eventually degenerated into epithelioma.

Dr. R. W. Taylor joined in the discussion.

Dr. Adams introduced the following resolution:

Resolved, That the delegates from the Academy of Medicine to the State Medical Society be instructed to urge at the next meeting of that society, a change of time for holding its meetings, from February to June. Adopted.

The Academy then adjourned.

◆

The Graduating Exercises in the Medical Schools will be held as follows: Medical Department of the University of the City of New York, at Steinway Hall on the evening of Tuesday, February 16th; Bellevue Hospital Medical College, at the Academy of Music on the afternoon of Thursday, February 25th; College of Physicians and Surgeons, at Steinway Hall, Monday evening, March 1st.

Correspondence.

THE VALUE OF SPECTRAL ANALYSIS.

To the Editor of The Medical Record.

Sir:—Various propositions, contained in my lecture before the Medico-Legal Society, "On the Importance of Spectroscopic Analysis in Forensic Cases," are controverted by Dr. Henry G. Piffard in The Record, Nov. 11, 1874, who contends "that I have incorrectly stated questions of fact in Spectral Science, and that I claimed more for the spectroscope than the facts warrant." In speaking of the sunlines, I stated that "Kirchhof has left us a map of these, a masterpiece of correctness and skill, containing many hundreds of sunlines, and our distinguished Rutherford has photographed them from the sun." The critic reminds me that only a small number of Kirchhof's lines "are delineated on Rutherford's map, and that many others, especially those more refrangible than the H line, were never seen by Kirchhof."

I am not aware that I have anywhere stated that Rutherford photographed all sunlines from the sun itself. I desired to convey the idea that sunlines *were thus photographed*, nothing further. The two sections of mappings to which I had reference were those published by Professor Roscoe, in his work, "Spectrum Analysis," page 206, second edition; they contain each about 130 sunlines, laying between E and G, extending from the 194th to the 220th degree of Kirchhof's scale. This being my reference on the two sections of mappings, it will be seen I must have been in full possession of all information so ostentatiously offered by Dr. Piffard.

In my lecture I stated that Professor Draper has given us a map containing a great number of sunlines, invisible under ordinary circumstances; these lines are made evidently at the red and violet part of the spectrum. The human retina is not sensitive to light waves beyond the red and violet part of the spectrum.

From this he forces the fallacious inference that *I thereby meant* the whole range of sunlines in red, orange, yellow, green and blue!

In my aforesaid lecture I stated that sound, heat and light are produced by vibrations; that those least in velocity and wave lengths produce sound; those next in velocity, heat; and those highest in velocity, light.

I am reminded that sound-waves are produced in the atmospheric air, and that they travel in the same direction as the waves progress. All I desired to convey was the close analogy existing between sound, heat, light and motion. That the denser medium of the atmospheric air furnishes the conditions necessary for the production of sound, I freely admit as a universally acknowledged fact.

Whether the ether is effected by condensations and rarefactions of the atmospheric air in the production of sound is, I claim, an open question. Professor Lovering, in his address before the American Association, Hartford, Aug. 14, 1874, asks: "How is the ether affected by the gross matter which it invests and permeates? Does it move when they move? If not, does the relative motion between the ether and the other matter change the length of undulation on the time of oscillation? Evidently there is an obscurity in the minds of many physicists, and an uncertainty in all, when they reason upon the mechanical constitution of the ether and upon the fundamental law of light." Whilst I have no desire to place myself in antagonism to the prevailing theory on the existence of a cosmic ether, I am not unmindful that the existence of such an ether is denied altogether, and that there are physicists who insist that what is called ether is nothing more than atmospheric air in its highest state of rarefaction. (Schellen's note, p. 56.) Schellen says, Spectral Analysis, p. 65: "To the physicist the words color and sound are only modes of expression, for phenomena *similar to, and thoroughly related to, each other.*" The difference between the oscillations of the air and the ether consists only therein that, at the immensely great firmness and elasticity of the ether, not only does the propagation of the ether oscillations take place much quicker than in the coarser and more graver particles of the air, but also *because the number of oscillations per second is so exceedingly great that they must be counted by the billions.*

Strange indeed that Dr. P. lays more stress upon the longitudinal direction of the sound waves than upon their velocity and wave lengths, which he seems to ignore altogether!

I am further reminded "that the vibrations of heat and light take place in the luminiferous ether, and that the light waves travel at right angles."

This luminiferous ether seems to be to Dr. P. a scientific fact of which he knows and understands everything, whilst to me and to many others it is simply an ingenious hypothesis, "with wonderful facility of adaptation to each new exigency in optics."

Stall says of this luminiferous ether: "It is nothing but a cloth horse, for all the insoluble difficulties presented by the phenomena of sensible material existence."

How heat and light are produced in this luminiferous ether, simply by travelling at right angles without acknowledging the agency of velocity of wave motion, differing for sound, heat and light, and which Dr. P. seems to ignore, I am not able to understand.

I have before me both the works of Dr. A. Nagel and Dr. H. Schellen; neither of them say anything about the longitudinal course of sound waves, nor of the transverse direction of light waves; yet would it not be preposterous to assume, as Dr. Piffard has done in my case, that on that account these physicists were ignorant of these physical laws?

The statement that five metals were discovered by the aid of the spectroscope was made on the authority of Professor Roscoe, in the first edition of his book on "Spectrum Analysis."

What I said in my lecture upon the stability of hæmato-crystalline, and of its wonderful fitness to sustain the functions of life, I maintain with unflinching conviction. It must be evident to the unbiassed mind, that reference is here made to the crystallizable material of the blood, and not to the artificially prepared crystals, to which Dr. P. evidently refers. Let us look at the facts. Experiments, which I have repeatedly made, with old dried blood from man, have revealed to me the wonderful integrity of this substance, "the crystallizable material of the blood." These experiments, made especially with the blood of man, were published in the "Archives of Scientific and Practical Medicine," edited by Dr. Brown-Sequard, 1873, No. 5. They have passed the scrutiny of eminent physicists at home and abroad, *and they stand uncontradicted to-day.* Has Dr. P. repeated these experiments and attained different results? This course would be the only legitimate one to pronounce upon this subject. His unsupported opinion amounts to absolutely nothing. When I take a specimen of dried human blood, nearly six years old, and obtain from it the well-known oxyhæmato-crystalline bands, and when I find that such blood solution can be oxydized or deoxydized at pleasure, just like fresh blood, it is to me ample proof that the hæmato-crystalline *has not* been destroyed; it is striking evidence that ordinary atmospheric changes *do not*, as alleged by Dr. P., affect its integrity. As no substance known, is absolutely indestructible, I do not claim it for the hæmato-cryst. In my lecture under consideration I have pointed out the changes of this substance under the influence of chemical agents, under the head of "optic relations of blood," p. 532, and have furnished a diagram, marking their corresponding spectral appearances. Dr. Thudicum, in his report to the Privy Council, 1868, says that hæmato-crystalline is the last ingredient of the blood which undergoes putrefaction; it preserves its color and its spectrum for years in horribly offensive mixtures, to which air has only a moderate access, and adds, "that the stability of hæmato-cryst. is the main factor in the stability of life." The same unqualified view is taken by Dr. Valentin and Hugo Schiff, who experimented with old putrid solutions of blood, four years old (see "Der Gebrauch des Spectroscopes," pp. 95 and 97), and where he stated that such blood, four years old, might be used in medico-legal cases as well as fresh blood. The same view precisely is expressed by René Benoit, in his "Etudes Spectroscopique sur la Sang," p. 62. In point also is the case cited by Dr. Galletin in his lecture before the Academy, October 5th, 1871.

Were it not for want of space, many, many more authorities could be quoted to sustain my position to the fullest extent, where not one is known to sustain the "critic."

So also must I maintain what I "said in my lecture," that when the outer form of the blood corpuscle is destroyed by chemical or mechanical means, we may demonstrate blood by producing the crystals!

Here Dr. P. exclaims: "The fact is that crystals of hæmato-cryst. can only be obtained from fresh and not from dried or chemically altered blood!" Alas for Dr. P.! he recurs with incorrigible fallacy to the artificial hæmato-crystalline. Pryer, the best authority on this subject, says in his work, "Die Blutcrystalle," p. 5: "Blood crystals are not only hæmato-cryst. but Teichman's Hæmin, Hæmatin, Hæmatoidin and Hæmatoin." When and where did I say that from chemically altered blood we may obtain hæmato-crystalline? Nowhere. Why, let me ask, may not hæmato-crystalline be obtained from dried blood? So long as a solution made from dried blood responds to the spectrum test, showing the characteristic bands described by Hoppe, Seyler and Stokes, so long as it can be oxydized and deoxydized at pleasure, so long must hæmato-crystalline be present, and the blood solution must yield it. Dried old blood may not be the best source from whence to obtain it artificially and in quantity. Can Dr. P. point out any authority, or has he made the necessary experiments, to justify him in saying that it cannot thus be obtained?

Blood altered by carbonic oxyd, nitrous oxyd and prussic acid yields crystals of peculiarly firm stability. It is the possibility to produce this long list of crystals, and to recognize them by their peculiar modification of the spectrum, that furnishes us positive proof of the presence of blood, long after the blood corpuscle itself is broken up and its outer form destroyed!

It is thus that Newrock demonstrated a very small quantity of blood from a putrid solution of urine and milk, by producing the hæmatin-crystals, and Virchow has succeeded in a forensic case to prove the presence of blood by producing the crystals of Hæmine (Cellular Pathology, p. 178).

The proposition is fully corroborated by Dr. Thudicum, p. 170, Tenth Report, and Dr. Bird Herapath relates a case, the Government against Robert Coe, Swansea Assizes, where blood was demonstrated in quantity not exceeding ten $\frac{1}{1000}$ parts of a grain, after having been exposed to the elements for weeks.

I might go on to pile authority upon authority; enough, I think, has already been presented to prove fully my position and to disprove the assertions of Dr. Piffard! And now about the ash of human remains! I think it possible that the remains of any warm-blooded animal may give an identical spectrum. I possess no data on this point; possibly there may be a modification. But the fact that the remains of man, say if you will the animal remains, give a peculiar spectrum is of the greatest importance. In given cases it may furnish the missing link in the chain of evidence, which may tend to fasten the criminal act upon the true criminal!

With regard to the practical procedure to analyze a metal or a mineral poison, I have pointed out how this is accomplished by means of Mitcherlichs and Bequerel's Apparatus, on page 534.

Speaking of the Wharton trial, Dr. P. asks, "What is the spectrum of gelseminum? In answer I say: No spectrum of this drug is known to me, and yet I reiterate that the spectrum test could have given as the information whether the substance found was arsenicum, antimony or gelseminum. The spectra of the two metals arsenicum and antimonium are well-known, and were directly available. In case the spectrum of one or both metals could have been produced it would have been a strong presumption of Mrs. Wharton's guilt. In case the substance gave no spectrum of these two metals, it admitted the possibility of its being gelseminum by exclusion, and would have strongly pointed out the innocence of the accused, she having no responsibility for the administration of this drug.

Having answered all questions of the critic, I may be allowed to make a remark or two in defence of my positions:

My labors having passed the scrutiny of able physicists abroad and at home, it was natural for me to expect on the part of one who chose to have an opinion contrary to mine that such an opinion should be expressed in a candid and manly way, and that the very disinterestedness of my researches should have protected me from rude personal assault. I regret that Dr. P. has seen fit to act otherwise. Comment on such a course, however, is unnecessary. I am conscious that, as the pioneer of spectral analysis, applicable to medicine, in this country, I have recorded with the utmost fidelity the progress made in this branch of our medical science; I have added some original researches which are quoted as authority, and I am contented to rest upon the verdict thus far rendered by *my peers* at home and abroad.

S. Waterman, M.D.

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Hospital for Small-pox.—Some time since the Commissioners of Public Charities constructed a pavilion upon a pier opposite Bellevue Hospital, for the reception of small-pox and fever cases until they could be transported to the Island. It is said that the Health Board, who now have the charge of the small-pox hospital, intend to use this pavilion for the accommodation of the better class of paying-patients, who will thereby avoid the discomforts and risks attending the transit to and residence in the small-pox hospital proper.

RESECTION AS A REMEDY FOR ABDUCTION OF THE GREAT TOE.

To the Editor of the Medical Record.

Sir:—Having read in The Medical Record of January 15th, 1875, an article by Dr. A. C. Girard, U.S.A., on "*Resection as a Remedy for Abduction of the Great Toe*," I desire to communicate another case which lately occurred in my practice.

A. C., fifty years old, born in Ireland, laborer, was received into the St. Francis Hospital, October 24th, 1874, suffering from phlegmonous inflammation of the right leg. While treating him, I noticed that the patient was also afflicted with hallux valgus on the right side.

After having obtained his consent, I performed, on October 30th, resection of the head of the first metatarsal bone, in strict accordance with the method recommended by Huster. After making a small longitudinal incision along the inner margin of the foot along the diseased portion of the metatarsal head down into the bony tissue, I lifted the soft parts *together with the periosteum* and the sheaths of the tendons from the surface of the bone and then decapitated the bone with the straight narrow saw.

My experience has led me to consider this saw as the instrument *par excellence* for such operations, especially for subperiosteal resections of the ankle-joint, providing a certain degree of skill is acquired by frequent trials on the cadaver.

Concerning the after-treatment, Dr. Hamilton and myself have employed the warm-water bath for the purpose of preventing the only dangerous complication, viz., suppuration of the sheaths of the tendons and consecutive phlegmonous inflammation.

The method of superiosteal and subcapsular resection itself already avoids this danger and renders the permanent bath unnecessary.

In this case I still used the permanent bath on account of the patient's tendency to phlegmonous inflammation. But the patient complaining of pain while in the bath, and feeling better without it, I desisted after a few days from immersion, and ordered instead moist applications. Having left St. Francis Hospital soon after performing this operation, I was informed by my former assistant. Dr. Edebohls, that lint, fastened by adhesive plaster, had been applied to the wound, that an abscess had formed over a neighboring metatarso-phalangeal joint, which was opened and soon closed.

The patient having fully recovered, was discharged with well-formed and perfectly useful foot.

A. Rose, M.D.

151 Avenue B, N. Y.

THE TREATMENT OF ABORTION.

To the Editor of the Medical Record.

Sir:—In the article on "The Treatment of Abortion," by Dr. Skene, in your issue of Jan. 23d, I notice that among the "mechanical means" mentioned for the purpose of removing the ovum, a manipulation has been omitted, which was first described by Dr. Hoening, of Bonn (*Scanzoni's Beiträge*, Vol. VII., 1873), and which I have had occasion to employ to my great satisfaction in several instances. Thinking it may be interesting and serviceable to your readers, as it was to me, and knowing the difficulties and dangers which usually attend the removal of the ovum in abortion by means of the fingers, forceps, or curette, I am induced to request a limited amount of your valuable space to describe it. Hoening recommends to express the ovum, either entire or in part, if the fœtus be already removed, by means of bi-manual compression, two fingers of one hand being introduced into the vagina and passed as far up as possible into the fornix vaginæ, and the other grasping the uterus through the abdominal parietes, thus firmly compressing the organ between the fingers of both hands and slowly and surely expelling its contents. If the uterus is anteverted or anteflexed, as is usual during the earlier months of pregnancy, the two fingers should be passed into the anterior cul-de-sac, or the corpus uteri may be firmly pressed against the symphysis pubis by the external hand alone (the bladder having been emptied); if the uterus is retroflexed, the two internal fingers go behind the cervix. The relaxation of the abdominal parietes in multiparæ (in whom, as has been statistically shown, most abortions occur), usually renders the seizure of the uterus by the external hand an easy matter. The facility and rapidity with which the expression of the ovum is accomplished, is, according to Hoening, surprising and gratifying, as also the absence of subsequent hemorrhage or puerperal trouble. The pressure in the uterus need not and never should be sufficient to do harm.

Before reading this paper, I happened to meet with a case of miscarriage, in which I succeeded in expressing the retained placenta by bi-manual compression. Since then, during the past summer, I employed the manipulation in two cases, both abortions in the fourth month, in consequence of retroversion, with the most complete success. Passing two fingers into the posterior cul-de-sac, and grasping the uterus firmly with the other hand from without, I immediately felt the uterine contents slip out towards the cervix, and pressed them entirely into the vagina by passing the two fingers behind the cervix forwards, towards the external os. Both ova were expelled into the vagina entire, the membranes of one of them rupturing as it left the os. Both women made easy and rapid recoveries.

Of course it is essential that the cervix be sufficiently dilated before the measure is attempted; in my two last cases I accomplished the dilatation, and at the same time controlled the hemorrhage by the introduction of the colpeurynter for several hours. The uterine contractions attending the dilatation of the os will generally loosen the adhesions of the ovum to the uterus sufficiently to allow of its easy expulsion.

The advantage of this *vis a tergo* over the introduction of the speculum, the forceps and the curette, to say nothing of the old method of passing the finger into the uterus, are obvious. I trust this communication may contribute to the general adoption of this most excellent practice.

PAUL F. MUNDÉ, M.D.

54 WEST 46TH ST.

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ANCIENT ART.—At a recent meeting of the Obstetrical Society of London, a cast was presented of an antique group representing the Circumstantials of Labor in very early times, taken from the original found at Golgos, in Cyprus, in a temple erected in honor of Baal, the supreme divinity of generative power, and Ashtoreth, that of productive power. The group consists of four figures, the mother reclining on a couch, an attendant at the head, and the nurse sitting at the foot of the couch with the new-born infant in her lap. It was probably made three hundred years before the Christian era.

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MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The annual meeting of this Society will be held at Albany, Feb. 2, 3, and 4.

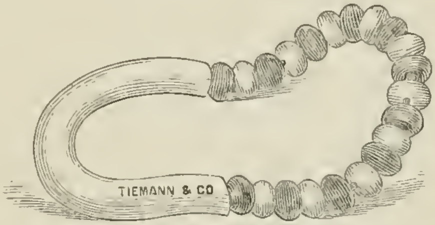
New Instrument.

A NEW GALVANIC PESSARY.

By H. T. HANKS, M.D.

THE instrument consists of alternate beads of zinc and copper strung on a copper wire, bent in the shape of an Albert Smith pessary. On the interior portion, instead of beads, rubber tubing covers the wire, otherwise the pessary would be too heavy.

I have used this instrument in the case of a young woman aged nineteen years, quite stout, unaccustomed to active physical exertion. She menstruated first at fifteen years; during the last four years only six times. Physical examination revealed uterus, normal size, low down in the first degree of retroversion. Patient had suffered from frequent attacks of headache and pain in the small of the back. This pessary was applied three months ago, since which time she has menstruated twice.



The beneficial effects of the Galvanic Stem Pessary have been recognized by such distinguished men as Simpson, Tait, and several of the leading gynæcologists of the city. The advantages of this *new* pessary are as follows, viz.:—

1st. It is more easily applied.

2d. It causes less discomfort in its use to the patient.

3d. The acid secretion of the vagina has a more decided chemical action upon the beads than the alkaline secretion of the uterus.

4th. In amenorrhœa attended with slight retroversion or prolapsus, it not only stimulates the ovaries by its galvanic action, but at the same time retains the uterus in position.

149 LEXINGTON AVENUE, Dec. 22, 1874.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 17th to January 23d, 1875.

KINSMAN, J. H., Assistant Surgeon.—Assigned to duty at Fort Seward, D. T., until further orders. S. O. 9, Dept. of Dakota, Jan. 16, 1875.

HEIZMANN, C. L., Assistant Surgeon.—Granted leave of absence for six months, with permission to go beyond sea. S. O. 13, A. G. O., Jan. 20, 1875.

MOSELEY, E. B., Assistant Surgeon.—Assigned to duty at Mobile barracks, Mobile, Ala. S. O. 4, Dept. of the South, Jan. 14, 1875.

SKINNER, J. O., Assistant Surgeon.—Leave of absence extended one month, with permission to apply to the Headquarters of the Army for a further extension of three months. S. O. 7, Mil. Div. of the Pacific. Jan. 12, 1875.

Medical Items and News.

VIVISECTION.—At a regular meeting of the Putnam Co. Medical Society held at Carmel, October 27th, 1874, the following preamble and resolutions were unanimously adopted:

WHEREAS, It is generally understood that an effort is being made by the Society for the Prevention of Cruelty to Animals to abrogate a clause of the law relative to vivisection, viz., "Nothing in this act shall be construed to prohibit or interfere with any properly conducted scientific experiments or investigations," therefore

Resolved, That this Society recognize the importance and necessity of experiments upon animals as a means of advancement in the knowledge of disease, its causes, and its cure.

Resolved, That we believe these experiments are conducted in conformity with the spirit of the law, and with due regard to the suffering and distress of the animals employed.

Resolved, That the suppression of physiological and pathological research by means of vivisection would interfere materially with our progress in medical science, and thus prove a great detriment to the medical profession, and to the welfare of mankind. Also,

Resolved, That we will put forth every effort in our power to preserve and perpetuate this law as it now exists.
J. H. BAILEY, M.D., Pres't.
MATTHEW A. BAILEY, M.D., Sec'y.

DISTRICT MEDICAL SOCIETY OF THE COUNTY OF HUDSON, N. J.—At the recent annual election of the District Medical Society for County of Hudson, the following were elected officers: For President, J. J. Prendergast; Vice-President, J. B. Burdett; Secretary, C. C. Young; Treasurer, W. R. Fisher, of Hoboken; Reporter, T. F. Morris. Delegates to State Society: B. D. Carpenter, L. R. Forman, F. E. Noble, R. F. Chabert, W. R. Fisher, J. J. Prendergast, D. L. Reeve, H. Michell, J. W. Hunt, J. H. Vondy.

FEMALE MEDICAL EDUCATION IN ENGLAND.—A school of medicine for women is about going into operation in London, with T. King Chambers as Professor of Practice; Berkely Hill, Professor of Surgery; and Mr. Crickett of Ophthalmic Surgery. Drs. Burdon Sanderson, Hughlings Jackson, W. L. Playfair and Professor Huxley are members of the Council. Dr. Anstie held the position of Dean of the Faculty, and the last public act of his life was to apply for recognition of the school as a duly constituted teaching body.

A LICENSING BOARD IN TENNESSEE.—We hear, from rather doubtful authority however, that a bill has been introduced in the Senate of Tennessee providing for the establishment of a State Board of Physicians, to issue licenses to all the physicians practising in the State. It provides for the establishment in each grand division of the State of a board of regular physicians, who shall have authority to meet annually at Knoxville, Nashville, and Memphis, to grant licenses to physicians and fix the fee therefor, when the same are not already fixed by law; to prescribe a course of reading for those studying medicine under private instruction; to grant licenses to practice particular branches of medicine or to treat particular diseases, and to grant licenses to apothecaries. The bill also provides that physicians who practise medicine or surgery for fee or reward in violation of this act shall be liable to an indictment and fine of five hundred dollars for the first offence, and imprisonment not to exceed three months for the second offence, the fine to go to the School Fund. Druggists violating the proposed law are to be fined from five hundred dollars to one thousand dollars. Physicians now practising are exempt from the provisions of the bill, and those of any other than the regular school will be allowed to practice upon their diplomas.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Seventh Annual Meeting, Newport, R. I., July 15, 1874.—This pamphlet of one hundred and twenty-nine pages, contains a "Report on the Progress of Otology," by H. Burnett, M.D., and J. C. Blake, M.D., the former reporting on Anatomy and Physiology, the latter on Pathology and Therapeutics. Drs. Clarece, J. Blake and Arthur Mathewson were elected to prepare a similar report for the coming year. The papers presented to the Society and published in the transactions were: "Ultimate Forms of Granulation Tissue in the Ear," by Dr. A. H. Buck; "Case of Otitis Media Purulenta, with Sinus opening into the Pharynx," by Dr. A. Mathewson; "A Case of Aural Polypus, having a Cartilaginous and Osseous Base," etc., by Dr. O. D. Pomeroy; "Mechanical Value of the Distribution of Weight in the Ossicula," by Dr. C. J. Blake; "Perforations of the Membrane of Sharpnell in Purulent Inflammation of the Middle Ear," by the same author; "Chronic Discharge from the Tympanum, with Perforation of the Membrana Flaccida posteriorly," by Dr. C. H. Burnett; "Case of Irritation of Chorda Tympani, Paralysis of Facial, Polypoid Growth upon the Membrana Tympani, Periostitis of the Malleus and adjacent Bony Texture," by Dr. H. D. Noyes; "Neuralgia in and about the Ear," by Dr. J. Orne Green; "A Case of Chronic Suppurative Inflammation of the Inner Ear," reported by Dr. David Webster; "Tenotomy of the Tensor Tympani Muscle, done posteriorly to the Malleus Handle, with Gruber's Instrument, with Cases," by Dr. O. D. Pomeroy, and "A Case of so-called Ménière's Disease," by Dr. C. H. Burnett.

GIANT IRISHMAN.—An Irishman seven feet eight inches high died recently in Scotland.

BOTANICAL GARDEN IN BALTIMORE.—Baltimore is to invest $50,000 in a botanical garden.

LIVINGSTONE'S HUMERUS.—The Chicago Medical College has obtained a plaster cast of the humerus of the great missionary, showing the famous false joint caused by the jaws of the lion.

DR. WILLIAM RUTHERFORD, recently of King's College, London, has been appointed to the chair of physiology in the University of Edinburgh, in place of Professor Bennet, resigned.

WEEKLY BULLETIN OF MEETINGS OF SOCIETIES.

Monday, Feb. 1.—Medico-Chirurgical Society, Morrisania Medical Society, N. Y. Neurological Society, Pathological Society of Brooklyn.

Tuesday, Feb. 2.—Medical Society of the State of New York, at Albany, N. Y.; Obstetrical Society, East River Medical Association.

Thursday, Feb. 4.—N. Y. Academy of Medicine. "Pneumonia, its Prevailing Type and Treatment." Discussion by Professors A. Clark, Flint, Thomson, Peaslee, Leaming, and others.

Friday, Feb. 5.—Medical Library and Journal Association. "On Water Poisoning as a Cause of Disease," by Thomas H. Bailey.

Original Lecture.

ON THE PATHOLOGY AND ETIOLOGY OF MORBUS COXARIUS.

By LEWIS A. SAYRE, M.D.,

PROFESSOR OF ORTHOPŒDIC AND CLINICAL SURGERY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Reported for the MEDICAL RECORD.)

LECTURE II.

GENTLEMEN:—We next pass to the study of the pathology and etiology of morbus coxarius. Under the head of pathology we shall describe the changes that take place in the tissues of the joint during the earliest changes of the disease, leaving the changes which take place in the more advanced stages to be considered in connection with the symptoms to which they give rise.

First—The disease may begin as a synovitis.

Second—It may begin in a rupture, partial or complete, of the ligamentum teres; thereby interfering with the nutrition of the head of the femur.

Third—It may begin from rupture of some of the little blood-vessels which are situated in the bone just beneath the cartilage of incrustation. This may occur either upon the head of the femur or at some point in the acetabulum, and results from blows, jumping, or anything which may produce a sudden concussion of these articular surfaces. These three conditions require special consideration.

First, then, of synovitis. Inflammation of the synovial membrane of the hip-joint may be produced in the same manner as it is produced in any other joint of the body, but it is almost always the result of exposure to sudden changes of temperature after violent exercise, such as skating, racing, jumping, playing at football and other movements that over-exercise the joint.

When the synovial membrane becomes inflamed effusion of fluid into the cavity of the joint always takes place. The synovitis may be subacute in character, and attended by the effusion of only a small quantity of fluid, but not followed by disintegration of the tissues of the joint; or the same degree of inflammation, in some cases, may be followed by complete disintegration of the joint structures.

Again, the synovitis may be very violent, be accompanied by intense pain and the effusion of a large quantity of fluid, and make rapid progress towards destructive changes within the joint. When the joint becomes distended with fluid there will be present a peculiar deformity, which we shall fully describe when we come to study the symptoms of hip-joint disease. Of course the synovial membrane sooner or later becomes involved as do the cartilages, ligaments and bones, no matter how the disease begins; but that there are cases of hip-joint disease which have their commencement in a synovitis I am fully convinced. When the synovial membrane becomes involved *secondarily* the same deformity will be produced as when it is the *primary* affection, which will be more fully studied hereafter.

Second—Any violent straining of the ligamentum teres, such as may be caused by forcibly stretching apart the legs, or by other violent exercise which gives motion to the joint to the extreme limits, may partially or completely separate it from any of its attachments to the bones. It is most likely, however, to be separated from its attachments to the head of the femur. When such an accident occurs the vessels which supply the head of the femur are destroyed, and necrosis follows as the result of interference with its nutrition. Secondary changes soon occur in the cartilages and synovial membrane, and the case goes on, if not relieved, to the development of hip-joint disease in its worst form.

Third—When the disease begins in the blood-vessels in the articular lamella, it first appears as an extravasation or "bloodblister" at some point. This is the nidus or starting-point, and if the damage done is detected at the time of the infliction of the injury, *rest alone*, if continued for a sufficient length of time, will probably bring about a favorable termination in a great majority of instances. But the damage done not being detected, and in many instances not even suspected, the rest necessary is *not insisted* upon at the proper time; consequently the disease is slowly developed, and frequently is not distinctly pronounced until long after the accident that has caused the trifling damage to the blood-vessels, and given rise to so much trouble, has been entirely forgotten.

A pinch of the skin producing a "blood-blister," in slight extravasation of blood within the cellular tissue, is of common occurrence, and is of no great importance. If let alone, it will soon be absorbed; or at most, if you let the fluid out and do not irritate the wound, it will soon get well. But suppose, even in this most trifling injury, that, instead of giving it rest and time to heal, you constantly scratch it with a rusty nail; you will produce a sore that will last as long as the irritation is continued. This is a parallel case with a joint that is exercised after concussion or a blow or wrench that has produced an extravasation of blood from the tufts of blood-vessels already referred to.

Now, while I believe that this disease begins in one of the three ways mentioned, I would not have you understand that the disease progresses very far, without involving all the structures entering into the composition of the joint.

For instance, when the disease begins as a synovitis, the cartilages, bones, and ligaments sooner or later become involved. So when the disease begins in destruction of the ligamentum teres, partial or complete, the same consequences ensue, and the same is true when the disease begins as an extravasation of blood in the manner described.

I do not believe, however, that the disease ever begins in the cartilages of the joint, for the reason that these structures contain neither blood-vessels nor nerves. Necrosis occurs *secondarily* in the cartilages on account of the loss of nervous and vascular supply to the tissues upon which they depend for nutrition.

This, according to my view, constitutes the pathology of this disease at its very beginning. There are other and very important pathological changes that occur as the disease progresses; but inasmuch as certain symptoms, such as certain positions which the limb assumes, are directly dependent upon these pathological changes, I shall consider these in connection with the symptoms to which they give rise. We shall now pass to the study of the subject of causation.

ETIOLOGY.

Almost all surgical authorities agree that morbus coxarius is invariably the result of a contaminated constitution; in other words, that it is essentially strumous in its origin. This has been the universal opinion, and the doctrine has descended from teacher to student, and is still extant among the majority of surgical practitioners. It has been so often taught and enforced by frequent repetitions, that nobody considered it worth while to question its truth; but nearly all have taken it for granted, that an assertion so positively made and universally accepted must be based upon mature investigation. When I first entered the profession I accepted this doctrine taught by our fathers, but must confess that I never was fully satisfied with regard to its correctness. Now, while I revere the labors of those great men in the advancement of scientific investigation, I must be permitted to question what is questionable, and to doubt what is doubtful.

Examination of the cases which have presented themselves to my notice since that time has convinced me that the cachectic condition so often seen is the result and not the cause of the disease; for very many of the patients in the earlier stages of the disease have possessed all the appearances of robust health, and in all those cases in which the disease has been cured by nature's method, the patient, subsequent to the cure, has been hale and hearty. I do not suppose there is a person in this room who cannot call to mind some old fellow with a shortened hip, perfectly anchylosed, who yet has a ruddy face, a good healthy complexion, and is a vigorous, robust old man. If he had had scrofula in his system, it would have remained there, and when his hip had recovered the man would have been a miserable old fellow after all. The very fact of his becoming a vigorous, robust man after going through all the exhausting effects of hip-joint disease proves, in my judgment, that the disease is not of constitutional origin.

The additional fact that, in so many cases, the joint has been exsected when the patients have been, apparently, at the point of death, and after the removal of the dead bone have become vigorous, strong persons, is good evidence that the disease is not constitutional. Then there is the still stronger fact that, by treating the disease locally without reference to constitutional taint, we obtain perfect results, so much so that the patients recover with perfect motion and without the slightest deformity, which is the best proof in the world that the disease is essentially local in character.

Another fact worthy of consideration is that a very large proportion of cases of the disease occur in children, while the scrofulous condition is by no means so restricted.

I have unfortunately recorded only a small part of the cases which have fallen under my observation, but 330 cases have been fully entered upon my record, and of these, 250 were under the age of fifteen years, and 80 were under the age of five years. Similar results have been obtained by other gentlemen who have collected statistics upon this point.

Now, it is not necessary for me to prove that adults are nearly as liable to be affected with scrofulous diseases as are children, the less number of cases seen being due to the fact mainly that these sickly children are very liable to die before reaching adult life. If, therefore, we still adhere to the scrofulous theory, we are forced to conclude that the diathesis, which in childhood develops itself in joint disease, manifests itself in some other way after puberty. This I cannot believe. Childhood is the age of restless activity, and out of the hundreds of cases in which I have taken the trouble to trace their history I have found that the immense majority, I may safely say seventy-five per cent., have occurred in the most vigorous, robust, wild, harum-scarum children—boys who take their chances of danger, who run races, climb over fences, jump out of apple-trees, kick their playmates down stairs, ride down balusters, and are generally careless and reckless.

On the other hand, the adult does not place himself in the position in which he can receive so many blows or falls as the active child does, and furthermore he immediately notices the effects of his injury, and takes precaution against its development into serious trouble. The child, however, knows nothing of results, and unless the pain from the injury is great will probably fail to complain of it, and soon forget it altogether. This, I believe, is the true reason why so many more cases of joint disease are seen in children than in adults.

I do not wish to be understood as saying that scrofula is a *preventive* of disease of the hip-joint, as has been asserted concerning my teaching. All things considered, a smaller amount of injury will produce the disease in one of these miserable sickly children than in a healthy, robust child. But the sickly, scrofulous child who clings to his mother's apron does not run the risk of getting hurt as do these active, restless children; consequently the majority of cases occur among the active and robust.

From what has been said, you have probably already drawn the inference that I regard the disease as one almost invariably due to a *traumatic* cause, and *not* dependent upon some constitutional taint. To what has already been said upon this point we may add the positive evidence of statistics.

Of the 330 cases alluded to above, *traumatic* cause was assigned by the patient or the parent in 228; while in 102 cases the cause was recorded as unknown.

In 243 cases the previous general condition of the patient was good; in 42 cases it was bad; and in 45 cases it was unrecorded. These figures are taken from the notes of my own fully recorded cases. Cases not fully recorded have been rejected in making these statistics.

Now, the cases in which the previous condition was bad, together with those in which it was unrecorded, make up less than 27 per cent. of the whole; and it is possible that very many of those had a traumatic origin that had been overlooked or forgotten, owing to the insidious manner in which the changes had come on.

My own clinical observations with reference to this point stand by no means isolated. The same observations have been made by other surgeons, both in this country and in Europe.

It generally requires a very close examination to find out the cause, since the disease does not usually follow the injury immediately; but often first manifests itself weeks and even months after the accident that has given rise to it has occurred; so that the patient and his friends naturally enough forget the accident and the connection with the disease until especially reminded of it in the investigation.

So much, gentlemen, for the pathology and causation of hip-joint disease, and now we are ready to begin the study of its symptoms.

The Uses of Association Meetings.—Dr. Max Muller, in a recent inaugural address, says that the uses of association meetings are twofold: "1. They enable us to take stock, compare notes, to see where we are, and to find out where we ought to be going. 2. They give us an opportunity, from time to time, to tell the world where we are, what we have been doing for the world, and what in return we expect the world to do for us."

Original Communication.

CLINICAL NOTES ON SOME COMMON DISORDERS OF THE NERVOUS SYSTEM.*

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IN obedience to the flattering request of this Society, I shall endeavor briefly to describe the more prominent clinical features of a few of the forms of nervous disease most likely to be met with in general practice; and if much of what I shall have to say prove quite familiar to the experience of my hearers, my excuse must be that even the commonest of these forms of disease are very inadequately depicted, if mentioned at all, in the ordinary medical text-books to which the busy practitioner refers for information; the literature of the subject being relegated to special treatises, or scattered throughout various periodicals and isolated monographs.

The oftenest-seen nervous disturbances are those arising from cerebral hyperæmia, or its opposite, anæmia, before any actual structural lesion has occurred; and the importance of recognizing these conditions is evident when we consider that the gravest organic degenerations find their starting-point in impairment of nutrition, which, in its turn, depends on the quantity and quality of the blood-supply. As regards the latter (the qualitative condition), I am fully persuaded that very many of the organic diseases of the nervous centres, now considered as the exclusive property of specialists and electro-therapeutists, are of toxæmic origin (using the word toxæmic in its largest sense), and will ultimately revert to their fitting place within the range of general pathology and rational medicine. We already know how many nervous maladies are of syphilitic, scrofulous, or lithæmic origin; we often see the action of malaria in producing neuralgia, intermittent paralyses, and other functional, if not organic, nervous derangements; we can frequently trace degenerative textural changes to their etiological source in chronic alcoholism; and, aside from such specific contaminations, it seems not unreasonable to suppose that any diminution of the nutritive properties of the blood would be most apt to show its effects in structural degeneration of the nerve-cells, which, being the most delicately organized of tissues, require the most elaborately-prepared pabulum; and more particularly should we look for this where hereditary or acquired influences were at work to depress the vitality of the nervous system.

To return from this digression: in speaking of cerebral hyperæmia I am not now referring to the quasi-acute attacks of congestion with which every practitioner is familiar, and which in their most pronounced form present apoplectiform symptoms; but to a more insidious chronic condition which may endure for months without attracting professional attention. There is—at all events in the earlier stages—rather an exaltation than an actual impairment of the cerebral functions; the patient finds more or less difficulty in concentrating his thoughts upon any one subject, simply on account of the confusing multiplicity of ideas which arise with simultaneous spontaneity; the same functional over-activity of the brain commonly keeps him awake at night; he frequently suffers from headache, or oftener from a sensation of intracranial pressure or fulness not amounting to actual pain. In connection with this cerebral hyperæmia, and probably as a consequence of the brain receiving more than its share of blood, the digestive processes are usually sluggish; but, in the stage which I am describing, the patient seldom feels seriously alarmed about himself. He is often, indeed, in rather higher spirits than natural, the emotional as well as the ideational processes being accelerated; at other times, however, this emotional excitability may show itself in increased peevishness of temper. The condition thus briefly sketched is one very often met with, the diagnosis being in most instances sufficiently obvious; its early recognition and treatment, however, may avert grave results.

Scarcely less common is the opposite state of chronic insufficiency of cerebral blood-supply, which, though often dependent on general anæmia, may unquestionably exist as an idiopathic disorder. Although, as might be supposed *à priori*, the symptoms of cerebral anæmia are in many respects in direct contrast to those of hyperæmia, yet there are exceptional cases in which it may be a matter of some difficulty to distinguish between the two with certainty. As a general rule, it may be said that anæmia is characterized by mental depression with deficiency rather than excess of ideational processes. Instead of the incoherent activity and emotional exaltation which in greater or less degree accompany hyperæmia, we have listlessness and despondency. In brief, the type of exaggerated hyperæmia is mania; that of extreme anæmia is melancholia; and in the less pronounced forms of these conditions the mental symptoms respectively approach more or less nearly to such types. Drowsiness is an almost invariable concomitant of anæmia, but, by a seeming contradiction, the patient is often annoyed by wakefulness on lying down at night, a phenomenon ascribed by Dr. Hammond to the gravitation of blood into the brain in a recumbent posture inducing "comparative hyperæmia," but which I should rather attribute to defective nutrition with consequent irritability of nerve-tissue; for, in the first place, the head is usually sufficiently elevated by the pillows in bed to counteract partially the attraction of gravitation, and, in the second place, in my experience, at least, the anæmic vigil is almost peculiar to the night time, with but little regard to posture. I have seen patients in this condition who could dose throughout the day, not only sitting, but lying on a sofa with the head as low as it would be in bed, but who, on retiring for the night, at once became morbidly wakeful. It may, of course, be argued that in such instances the exhaustion following a restless night compels the diurnal sleep, while this in turn increases the nocturnal wakefulness, but I am inclined to believe that nervous apprehensiveness of losing the natural repose plays an active part in banishing slumber. The headache which accompanies anæmia is usually circumscribed in the vertex and neuralgic in character, and not infrequently associated with neuralgias in other situations. There is sometimes vertigo, and usually dizziness, especially on rising from a recumbent to an erect posture. Tinnitus aurium is commonly present, and in the majority of cases muscæ volitantes are seen. If the general anæmia be marked, we shall find, in addition to facial pallor and the almost pathognomonic dead-whiteness of the conjunctiva, the well-known disturbances of accentuation of the heart-sounds, with perhaps basic murmur and "venous lum" in the cervical vessels; but these belong to a more advanced condition than that of which I am now speaking. In nearly all instances, however, there may be observed evidences of an enfeebled and irregular circulation. I have not alluded to ophthalmoscopic inspection of the retinal vessels as a means of diagnosis, partly because the general practitioner seldom has time to make himself expert in such examinations or opportunity to apply them to the class of patients just described; partly because—however valuable the ophthalmoscope may be in the detection of other central nervous lesions—considerable variations in the intra-ocular circulation may occur within the range of health, or be dependent on local conditions.

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* Delivered by request before the Richmond County Medical Society, December 2, 1874.

Whether the condition described by some writers under the title of cerebral exhaustion be primarily due to functional enfeeblement of the nerve-cells, irrespective of circulatory alteration, or the result of intra-cranial anæmia, is a question still, I think, *sub judice.*

The brief time at my disposal precludes consideration of the treatment of these morbid states, which must be chiefly hygienic (I exclude, of course, the cases in which the cerebral disorder is merely symptomatic of an actual local lesion, or of organic disease in other viscera, as the heart or kidneys). As regards two remedies very often prescribed—namely, hydrate of chloral and bromide of potassium, it should be borne in mind that both reduce the cerebral circulation, and hence, while they may be of great service in hyperæmia, they should be avoided in anæmia. In the latter state, in addition to chalybeate tonics and nutriments, alcoholic stimulants are sometimes useful; but I need scarcely say that they should be prescribed with caution and, especially in the case of low-spirited females, in fixed doses.

Paralytic conditions constitute a large proportion of the nervous diseases encountered in general practice, and oftentimes present difficulties in the way of diagnosis. For convenience of description, paralyses of intra-cranial origin may be divided into those which are sudden and those which are gradual in their access, though, strictly speaking, there is little pathogenetic difference between the pressure of a hemorrhagic clot and that of a slow-growing tumor. Of the sudden paralyses, the most familiar examples are those which were formerly grouped together under the generic head of apoplexy, but which are now known to arise from one of several different causes, their common symptoms being loss of consciousness and hemiplegia. The most frequent of these causes are: extravasation of blood, rapid local congestion, and the obstruction of an artery by the lodgment of an embolus detached from the heart. At the time of the seizure, it is impossible, in the majority of instances, to decide which of these conditions obtains. It has been asserted that in congestive apoplexy the palsy is usually not confined to one side of the body, and that stertor is seldom present; but although in the absence of post-mortem facts it is impossible to deny the existence in any given instance of some small peripheral extravasation, to the pressure of which the brain-substance may soon accommodate itself, it is nevertheless certain that cases frequently occur of sudden hemiplegia with snoring coma, which the rapid subsidence of the symptoms apparently warrants us in ascribing to local congestion. Equally untrustworthy are any diagnostic signs related to the appearance of the iris; for in hemorrhagic apoplexy the pupil may be either contracted or dilated, according to the seat and degree of lesion. In most instances, however, we may learn that the congestive apoplectic seizure has been preceded by symptoms of cerebral congestion.

In embolism, consciousness is generally, though not always abolished, and its recognition in most cases must depend on knowledge of the patient's previous history as to cardiac disorder. Inquiry into antecedent symptoms will usually enable us to exclude the apoplectiform seizures which occasionally supervene upon epilepsy; the same remark applying to the sudden palsy which (sometimes without coma) arises from softening of the brain.

The so-called serous apoplexy is, as a rule, marked by progressive deepening of symptoms rather than instantaneousness of seizure, but if the effusion be very rapid it may be undistinguishable from cerebral hemorrhage.

A circumstance which may at first sight occasion some confusion is that in extensive cerebral hemorrhage a state of shock may precede the development of the true apoplectic coma. In the case of a gentleman whom I saw some months ago almost immediately after the first occurrence of extravasation, this shock was so profound as to amount nearly to collapse: there were waxy pallor of the face and lips; coldness of the surface; shallow, feeble, sighing respiration; a scarcely perceptible, fluttering pulse; all the appearances, in fine, which follow severe surgical injury. This possibility should be borne in mind as simulating syncopal or hysterical coma. It is only, however, at the moment of attack that any of these perplexities are likely to occur; the character of the lesion being generally pretty clearly defined by the subsequent phenomena.

In some cases of rapid and extensive injury to the brain substance (as from hemorrhage of considerable amount) we may notice for a longer or shorter time a turning of the eyes away from the palsied side. There is neither the divergent squint of paralysis of the third pair of nerves, nor the convergent strabismus significant of incapacitation of the sixth; the ocular axes remain parallel, but they (and in many instances the head also) are turned to a considerable angle from the mesial plane. This phenomenon, according to Hughlings Jackson, betokens injury of the brain far above the origins of the nerves apparently implicated—involving the higher centres which preside over associated movements. To use Dr. Jackson's phrase, "there is loss of a chord, not loss of a few notes." He affirms also that such lateral deviations occur with superficial lesions, as from meningeal hemorrhage, etc., or with crippling of other parts of the nervous system, notably of the crus cerebelli.* In speaking of localization, it is, of course, understood that the hemiplegia itself shows the corpus striatum to be pressed upon; but this pressure may be caused by an adjacent lesion as well as by an effusion into its proper substance, and we not unfrequently find hemiplegia produced by a clot situated at some distance from the corpus striatum. As an apparent exception to the rule that paralysis of one half the body arises from direct or indirect compression or disorganization of the corpus striatum, may be noted the hemiplegia (usually of the right side) attending the sudden lodgment of an embolus in the middle cerebral artery. Here the palsy cannot be accounted for by compression, and the only explanation to be given of it is by surmising an arrest of function of the corpus striatum, due to the cutting off of its blood-supply, which is chiefly derived from the middle cerebral artery. This view is supported by the fact that embolism sometimes occurs in this vessel without causing hemiplegia (in which case we may suppose the obstruction to be beyond the origin of the branches going to the striated body), and, furthermore, that embolic hemiplegia, if it persist after the time requisite for the establishment of collateral circulation, is traceable to anæmic softening.

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* Brit. Med. Journal, July 25, 1874.

In most instances in which we are consulted, however, paralysis has been of some duration, and the question presented to us is to determine the nature and locality of the lesion from our knowledge of physiological anatomy, and an inquiry into the history of the case.

The first thing to be ascertained is whether the palsy be of cerebral origin, and this, even in the case of hemiplegia, in the absence of marked facial paralysis, or implication of some of the cranial nerves, may not always be an easy task, since unilateral lesion of the upper part of the spinal cord may possibly be the cause. Such spinal hemiplegia is said, by some authors, to be distinguishable by its involving the thoracic and abdominal muscles, leaving the mental faculties unimpaired, and being usually attended with anæsthesia; but none of these signs are unfailing. The escape of the respiratory muscles, in most examples of cerebral hemiplegia, is explained by Broadbent's hypothesis: that paired muscles, which habitually act together, are both represented in each side of the brain, and hence both receive their motor-stimulus even when one side of the brain is crippled. Moreover, we know that the more automatic muscles are the last to suffer from paralysis and the first to recover. But in the gravest brain lesions the respiratory movements of the palsied side are often affected. On the other hand, hysterical paralysis is commonly accompanied by anæsthesia.

Great aid in diagnosis may be derived from the application of electricity in many doubtful cases of paralysis, if the requisite apparatus be at hand. Thus, as a rule, in paralysis of cerebral origin, the contractility of the affected muscles under the induced or faradic current is unimpaired; in spinal paralysis this contractility is lessened; whilst in hysterical paralysis electro-contractility is normal, but sensibility to the current is diminished. As a galvanic battery seldom forms part of the general practitioner's office furniture, I need not refer to the diagnostic uses of this form of electricity in distinguishing some cases of peripheral from central paralysis.

To return to our immediate subject, it may be assumed that in at least ninety-nine out of every hundred cases of hemiplegia the lesion is in the brain, and it remains for us to discover what it is and where it is. That it arises from either compression or disintegration, affecting the corpus striatum, optic thalamus, or pons varolii, we already know; but the disintegration may be caused by hemorrhagic laceration, or by softening following embolism, or by abscess, or by so-called idiopathic ramollissement (which is probably eight times out of ten from anæmia, and the other two from toxæmia), whilst the compression may come from a clot or a neoplastic growth, as tubercle, cancer, syphilitic gumma, fibroid tumor, or ossific deposit, or from aneurism or hydatids.

If the palsy have been of sudden occurrence, I have shown how a knowledge of its mode of seizure may help us in determining its cause; if, on the contrary, its access have been gradual, we have usually to decide between softening and some progressive source of pressure. If we learn that after an apoplectic attack rigidity of the affected muscles took place, we may infer that inflammatory action, with subsequent disintegration, set in around a hemorrhagic clot. In the absence of such inflammatory action, there is commonly a gradual amelioration in the symptoms, both mental and physical, of cerebral hæmorrhage in non-fatal cases; whereas in hemiplegia from acute softening (which, as has been said, may occur in some instances without premonitory indications) little, if any improvement is noticed, the paralysis persisting, and the mind being permanently enfeebled, whilst the muscles are flaccid and unresisting.

In chronic softening, there is usually a very insidious weakening of the intellectual faculties manifesting itself first, in want of memory, especially of recent events. The patient may remember, in detail, the occurrences of bygone years, but forgets those of the current day. With this, in the earlier stages, may be noticed irritability of temper, perversions of cutaneous sensibility, vertigo, headache of a dull, persistent character, often nausea and vomiting, and hemiplegia is ushered in by muscular debility, and partial paralyses of single facial muscles. As the disease advances convulsions are of frequent occurrence.

Abscess may generally be distinguished from softening (which in some respects it simulates) by its more rapid course, its average duration not exceeding a couple of months, and by the circumstance that convulsions usually precede paralysis. Moreover, we can sometimes obtain a clue from the history of some injury to the head or the existence of aural disease. It should be remembered, however, that a few cases have been recorded of large cerebral abscess proceeding to a fatal termination unattended by any marked mental or bodily disturbance. Or, again, an abscess which has reached a certain size without much functional derangement may produce an apoplectic seizure by its rupture.

The symptoms induced by a tumor vary according to the slowness or rapidity of its growth as well as its situation. A prominent characteristic in nearly all cases is deep-seated, localized headache, aggravated at intervals as new nerve-tracts are irritated by the augmenting encroachment. In proportion to the rate of growth, and in certain situations, the evidences of irritation preceding the paralysis caused by profounder pressure will be more or less marked, some cases being accompanied by repeated epileptiform attacks, whilst in others palsy slowly supervenes without convulsions at any time. In some examples the brain accommodates itself to the pressure, and we find an apparent amelioration of the symptoms, to be followed by their renewal as the tumor enlarges. In addition, there are ordinarily vertigo,* impairment of special senses, notably of vision, and other cerebral symptoms (seldom, however, attended by mental decrepitude), long prior to the advent of paralysis, which in its turn often affects, as in the case of abscess, the facial or ocular muscles before it crawls on to hemiplegia, or may even be confined to the former. In rare instances there are only convulsive symptoms without paralysis, and in still rarer ones the motor ganglia may escape pressure and a tumor may attain great size in one of the hemispheres without occasioning any symptom whatsoever.

As a strongly marked example of cerebral tumor, some interest may attach to the following case:

J. B., aged 53, about four years ago began to suffer from severe headache, which was better and worse at times. This was followed by epileptic fits at varying

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*Vertigo having been spoken of as an early indication of several cerebral affections, it may be well to state that at a recent meeting of the Clinical Society of London (*Brit. Med. Jour.*, Oct. 31, 1874), Mr. Brudenell Carter and Dr. Hughlings Jackson adduce cases showing that this symptom, with others simulating brain-disease, may be caused by overstrained convergence of the eyes in short-sighted persons reading much without spectacles.

intervals and partial paralysis. The patient has now left-hemiplegia, divergent squint of the left eye with dilatation of left pupil, constant headache with occasional sharp exacerbations. Manner morose, but intellect not materially impaired. Sensation but slightly lessened. Epileptiform attacks occur with varying frequency. After an aggravation of the headache, these attacks, convulsing the unparalyzed limbs, will take place several times a day, their number gradually diminishing until several days elapse between them; they are not followed by the profound comatose sleep of ordinary epilepsy. Here there is evidently a tumor in the right hemisphere, the pressure from which has slowly encroached upon the corpus striatum, involving also the origin of the third nerve. The convulsions of the sound side may be explained by supposing that from time to time as the tumor enlarges an irritative squeezing of the left half of the brain takes place, to which after a while the tissues gradually become accustomed.

An instance of what I believe to be a new growth of a different sort was recently shown to me by my friend Dr. C. H. King, in the Seamen's Retreat Hospital, the principal features of which I may briefly recite from memory: The patient, a sailor of middle age, first came under his care some eighteen months ago, for facial neuralgia affecting the upper two branches of the right fifth nerve. This was relieved by treatment; but after about eight months he returned with a recurrence of the neuralgia, accompanied by deep-seated headache. Again an improvement was effected and he left the hospital; but after another similar interval, presented himself with hemiplegia, which had slowly supervened. The right side of the face, previously neuralgic, was now palsied, and with it the right side of the body; there had been, if I remember rightly, imperfect closure of the right eyelid, but there was no ocular deviation nor inequality of pupil. Hearing on the affected side was impaired. Speech not affected. Sensation somewhat diminished. No convulsive phenomena.

This history points, I think, to a new formation of very gradual development, the beginning of which made sufficient pressure on the fifth nerve to cause the neuralgic manifestation. Pain in a sensory nerve is significant of lowered vitality; anæsthesia, of abolition of function.[*] As the growth increased, deep headache was superadded, and the slowly augmenting pressure—too gradual to excite convulsive movements—ultimately extended to the corpus striatum and in less degree to the optic thalamus. The fact that the palsy is not complete—being rather paresis than paralysis—seems to show that the lesion does not involve the substance of the ganglia, but presses on their periphery only; its probable situation being the posterior part of the middle lobe of the left hemisphere. Although I am no believer in the exact localization of the faculty of articulate language in the third left frontal convolution, experience has taught that in lesions involving the left anterior lobe or the adjacent parts bordering on the fissure of Sylvius,[*] right hemiplegia is commonly accompanied by aphasia.

Tracing the morbid indication from before backwards, we find that the third and fourth nerves escaped, as well as the sixth, the fifth nerve being the first affected. and this, seemingly, at some distance from its origin, since its lower division and its motor filaments remained intact. When I saw the case the seventh nerve was chiefly implicated and the slight affection of the portio mollis seemed to mark the posterior boundary of the intra-cranial palsy. Had the lesion involved the pons varolii we should probably have had the rare symptom of "crossed" paralysis (the facial palsy being on the same side as the cerebral injury and opposite to the affected side of the body) from the seventh nerve being crippled after its decussation with its fellow of the other side; in other words, a solution of continuity on the left side of the brain below this point really affects the facial nerve-fibres which come from the right side. If a lesion in the pons be seated at the level of this decussation, so as to involve both facial nerves, it may occasion the curious complication of bilateral facial palsy with bodily hemiplegia.

In all cases of this sort, however, our efforts to determine the precise seat of the morbid process are uncertain, since it is to be borne in mind that pressure from a distant lesion may be transmitted through intervening tissue to the points where its action become manifest. For example, in a case which I saw in consultation some three years ago, in which hemiplegia was complete and hemi-anæsthesia very marked on the left side, the autopsy showed the corpus striatum and optic thalamus to be structurally sound, the lesion being situated near the surface of the anterior part of the middle lobe of the right hemisphere. In the hasty sketch given of the patient before referred to (whom I had not an opportunity of examining very thoroughly) I do not, therefore, intend to assert a positive diagnosis, but merely to indicate the method of investigation to be followed.[†] Before leaving the subject of cerebral tumors, let me add that the prognosis in such instances is hopeless unless they be of syphilitic origin. for which reason it is advisable to give the patient the benefit of any possible doubt by the tentative employment of antisyphilitic treatment.

In the examination of almost all forms of cerebral organic nervous disease, much assistance may be afforded by the ophthalmoscope and other instrumental aids in diagnosis, but I have purposely refrained from considering these. wishing to deal only with the indications observable by the general practitioner's unaided senses.

I should have liked to say something of paralyses of spinal or peripheral origin, as well as of other pathological conditions of the nerve-centres, such as sclerosis with its diverse but clearly-defined manifestations; but I find that I have already exceeded all reasonable limits, and must apologize for trespassing too long upon your patience.

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[*] Let me parenthetically suggest that tremor is, in the motor tract, analogous to neuralgia in the sensory, *i. e.*, an indication of lowered function (unstable equilibrium) of motor-cells not otherwise diseased. In cerebro-spinal sclerosis, for example, the characteristic tremor may be caused by a sclerotic patch crowding the unaffected motor-elements in its vicinity without quite paralyzing them. The function of the actually sclerosed portion is abolished; the tremor betokens depressed function of adjoining nerve substance. This may account for the apparent amelioration of the latter symptom sometimes obtained by galvanization, or other agents in cases of sclerosis, although the essential part of the malady defies our skill; our remedies really acting only on the texture which preserves its structural integrity. *Mutatis mutandis*, the same explanation applies to the neuralgic pains attending posterior spinal sclerosis (locomotor ataxia) and their relief by electrization.

[*] The younger Dax found reason, from numerous autopsies, to assign the organ of speech to the anterior and exterior part of the left middle lobe.

[†] My examination of this case on which the above remarks were based, was made in September. I now find that the patient has of late been subject to frequent convulsive seizures, with occasional paroxysms of almost maniacal excitement. The paralysis is much less marked than when I first saw him, the facial palsy having nearly disappeared. The motion of the right arm is greatly improved, but the right leg is still palsied. Catheterism is required from time to time—not so much, as Dr. King states, on account of the patient's inability, as of his unwillingness, to void his urine, which he passes voluntarily at some times, and at others retains until artificial evacuation becomes necessary. There is no aphasia nor difficulty of articulation; the patient answers questions and, during his excited moments, sings much. A long interval, however, elapses between a question addressed to him and his reply—sometimes several minutes, and his intellectual condition is one of dementia. Here the motor tract has apparently become gradually accustomed to the pressure which formerly impaired its function, and the brunt of the lesion is borne by the peripheral gray substance.

Progress of Medical Science.

Total Exfoliation of the Mucous Membrane of the Bladder with Retroflexion of the Gravid Uterus.—The subject of this accident was a woman, thirty-six years of age, previously healthy, and who had borne three children, without any unusual symptoms. Dr. Brandeis, of Louisville, who reports the case, says that when he was called to her she had been suddenly seized with severe pain in the hypogastrium, and was unable to void her urine, in spite of violent straining. There was swelling and dulness on percussion extending above the navel, as is seen when the bladder is distended. On vaginal examination the cervix uteri was found softened and crowded against the symphysis, while a hard immovable hemispherical tumor could be felt in the pelvis posteriorly. This was supposed to be a hæmatocele, as the patient stated that she had menstruated regularly two weeks before. A large amount of turbid urine was removed by an elastic catheter. The physician soon satisfied himself that the tumor consisted of a retroflexed gravid uterus, and easily replaced it by putting the patient in the knee-elbow position. After two days the urine was passed at will. On the fourth day the patient was found in an excellent condition, but stated that after urinating she had forced from the genitals, with much pain, a ragged membrane, which had subsequently been withdrawn. This was the mucous membrane of the bladder. She soon recovered, and three months later gave birth to a healthy child. Two months after, she suffered from a catarrh of the bladder, connected with retroflexion of the uterus. This yielded to treatment. Schatz and Moldenhauer have published similar cases, from which, however, this is said to differ in the following particulars. (1.) The pregnancy had reached the sixth month, while in Moldenhauer's it had only reached the fourth. (2.) The pregnancy ran its normal course without expulsive efforts, while in the other case there was abortion, followed by death. (3.) The mucous membrane of the bladder was not gangrenous, as in the other cases. (4.) The retroflexion was only partial.—*Archiv f. Gynack.*, v. 1874.—*Schmidt's Jahrb.*, 1874.

Tenotomy in the Treatment of Fracture of the Lower Jaw.—A machinist came under the treatment of Estlander, having sustained a double fracture of the lower jaw from a heavy blow, the lines of fracture on either side passing through the mental foramen. The separated portion of bone was drawn strongly backwards and downwards, and could only be replaced by using considerable force, but it was found impossible to retain it in place, though many different kinds of apparatus were tried. To overcome the difficulty, Estlander divided the tendons of the genio-glossus, genio-hyoid and digastric muscles, after which there was no difficulty in replacing the fragment and keeping it in place. Neither the tongue nor hyoid bone were materially affected, and the patient made a good recovery.—*Nord. Med. Arkiv.*, 6, 1874.

Action of Muscarine on the Pupil and on Accommodation.—Among the effects that Schmiedeberg and Koppe observed were caused by muscarine, the alkaloid principle of *agaricus muscarius*, were, at first, marked spasm of accommodation, and subsequently, after a prolonged action of the drug, a considerable myosis. The latter effect varied notably in different animals. It was very marked in cats, and very slight in rabbits.

Krenchel, in the *Hospitals-tidende*, for March, 1874, gives a sketch of a series of interesting experiments that he and Mulder made in Donders' laboratory. After dropping a solution of muscarine, varying in strength from one to thirty per cent., in the conjunctival sac of his own eyes and in those of several colleagues, the near and far points and the diameters of the pupils were measured with great accuracy. The result of these investigations showed that muscarine, like physostigmine, produces myosis and spasm of accommodation, but that they also present the following differences in their action. Muscarine always produces spasm of accommodation first, and in some persons this is its only effect; if myosis occurs subsequently it lasts from four to six times as long as the spasm of accommodation. The action of physostigmine on the accommodation begins with an approximation of the near point, in other words, there is an increased power and range of accommodation; a stronger action of physostigmine is necessary to produce spasm. The action of muscarine, on the contrary, commences in all cases with a spasm, and it is only after stronger doses that approximation of the near point occurs, though the latter effect is less marked than the spasm. The result is, therefore, in all cases a diminution of the range of accommodation. Hence the author considers that physostigmine is better suited to antagonize atropine than muscarine.

Modifications in the Operation for Recto-Vaginal Fistula.—At a recent meeting of the Société de Chirurgie, of Paris, M. Tillaux showed an instrument intended to facilitate the operation for recto-vaginal fistula. It is constructed on the principle of Desmarre's forceps for the enucleation of cysts from the eyelids, and consists of two blades, one in the form of a ring, the other solid. One blade is introduced into the rectum, the other into the vagina, and when approximated they limit the borders of the fistula, which can then be pared, according to M. Tillaux, without any loss of blood; and sutures may then be passed, as the solid blade is concave and furnished with a horn plate, which allows the passage of needles and sutures. M. Démarquay had made a series of operations for this disease and had failed. The cause of failure he attributed to the accumulation of the fæces, and also to the stretching of the parts during the act of defæcation, when the cicatrix gives way, either wholly or partially, and the fæces pass again into the vagina. There was also an anatomical condition of failure, the tension in the transverse direction of the lower wall of the vagina. He described the operation which he had tried with success, and divided it into two stages. The first stage consists in cutting through the posterior wall of the rectum as far as the coccyx, as in the operation for fistula in ano. This, in the first place, relaxes considerably the posterior wall of the vagina; and, secondly, it allows one to operate on the fistula, through the rectum, having it completely in view; thirdly, it allows the contents of the bowels to escape freely. The second stage of the operation comprehends several details; first, the edges of the fistula are very freely pared by oblique cuts, as in the operation for vesico-vaginal fistula by the American method; secondly, the edges having been freely pared and the flow of blood arrested, M. Démarquay inserts one metallic suture by means of Blaudin's curved needles, passing it through the posterior wall of the vagina; he unites the cut surfaces accurately by a number of points of suture, which are secured together in the vagina, as in vesico-vaginal fistula. This is easily done, owing to the relaxation of the parts, consequent on the deep incision of the sphincter ani. The contents of the rectum, on account of the division of the sphincter, remain but a short time in it, or if it be found necessary, their evacuation may be easily effected by a gentle laxative.

Injections of cold water are made daily into the vagina. He suggests that it is best to leave the sutures *in situ* for eight or ten days. The wound of the posterior wall of the anus cicatrizes, as in the operation for fistula in ano. M. Démarquay's patient, thus operated on, recovered. To those who may consider the preliminary operation proposed as serious, M. D. says that he has often performed it with the view of facilitating operations on the rectum, and that he had never met with any disagreeable consequences.—*The Medical Press and Circular*, December 23, 1874.

Scrofulous Ulceration of the Bladder running an unusual Course.—At a meeting of the Clinical Society of London, held November 27, 1874, Mr. Edwin Humby read the notes of a case of the above disease. A little girl, aged 9, had suffered for some time from irritability of the bladder, accompanied by pain in micturition. The urine was ammoniacal, and contained some mucus, but no blood. Under the supposition that there might be a stone in the bladder, she was seen by Mr. Prescott Hewett, who diagnosed scrofulous ulceration of the bladder, and prescribed cod-liver oil and iron. Subsequently the child had some febrile symptoms, which were followed by the appearance of a swelling between the umbilicus and pubes. The swelling became red, tense, and eventually pointed, and appeared about to burst; instead, however, of doing so, a large quantity of pus was passed by the bowel, and the swelling for the most part subsided. From this time it varied much in size, in accordance with the amount of discharge from the bowel; occasionally it was tympanitic, being filled with flatus. Subsequently a small perforation took place in the swelling at the umbilicus, and through this a thin watery fluid oozed until the child's death. At the post-mortem examination the bladder was found to be very much thickened, with extensive ulceration of its mucous membrane, and patches of tubercular deposit between it and the muscular coat. In front of the bladder was a circumscribed cavity containing pus, and communicating with the bladder behind and with the perforation of the abdominal wall in front. At the back of the bladder was a second perforation leading into the rectum. The other organs were healthy. Mr. Haward said that one means of diagnosis is the fact that in scrofulous disease the pain is worse before micturition, probably from stretching, and is relieved when the urine was passed.

Sounding should be avoided, at any rate, more than once. He had seen this followed in one case by severe hemorrhage. He had never seen a case proceed to abscess or ulceration into the bowel. Mr. Prescott Hewett related a case which had been under his care, and in which a pouch was formed in front of the rectum, obstructing the fæces. This pouch was opened by the finger alone, and much pus discharged. Post-mortem examination some time afterwards verified the diagnosis of scrofulous disease.

He regarded Mr. Humby's case as peculiar, inasmuch as "the other organs were healthy." This was very unusual, the ureters, etc., were generally diseased, and, if the patient recovered, he might die of phthisis. Recently he had seen scrofulous disease of the bladder and of the knee in one patient.—*British Medical Journal*, December 19, 1874.

Headache from Eye-Strain.—It is well known that headache is a symptom of many intra-ocular disorders, but neither in the works on the eye, says Dr. S. Weir Mitchell, nor elsewhere, is it made plain that headache may be for years almost the sole symptom of grave disorders of accommodation or of defects in the orderly action of the external eye muscles. Dr. Mitchell has often seen the sequence, and in cases of chronic headache, insists upon a careful examination of the eye, and has often been rewarded by finding the pain fade away when the optical effect has been duly corrected. The strain caused by the various forms of astigmatism often causes headache; but a light insufficiency of some one of the extra-ocular ball muscles is far more likely to give rise to it. In all of them the headache comes by degrees, and is at first found only following long use of the eyes. By and by, almost any use of the eye causes pain. The over-effort made to correct or accommodate, and converge or diverge the eyes, at first causes pain only on such effort; but at last the teased brain gets to aching when the patient is not trying the eyes, when he is thinking or doing a little mental arithmetic, or the like. Facts like these have often made physicians overlook the eye trouble as the true parent of the pain. When once the intra-ocular or oculo-motor trouble has been relieved, it seems natural to suppose that the headache would at once disappear, but, in fact, it fades away but slowly, and sudden entire relief is rare.—*Philad. Med. and Surg. Rep.*

Contaminated Drinking-Water and Typhoid Fever.—Dr. Haegler, of Basle, gives the details of an outbreak of typhoid fever in the village of Lausen, near Basle, where the ordinary conditions that have been said to govern the disease, such as the character of the subsoil and subsoil water, were extremely unfavorable for the development of the disease, and where in fact for a long time there had been no typhoid. In August fifty-seven cases occurred within a space of nine days, and in all the houses of the village except six, while these six drew their water-supply from a source entirely different from the others. On investigation it was learned that two months previously there had been cases of typhoid in a farm-house not far from the village, and that the dejections of the patients had been thrown into a little stream running through the yard or into a ditch communicating with it; this stream joined the larger one that supplied the village. Other excrementitious matter had also been thrown upon dung-heaps, from which a drain led to the same stream. Dr. Haegler concluded from these facts:—1. That the epidemic of typhoid fever in this instance was the result of drinking-water contaminated with the dejections of typhoid patients. 2. He believes that typhoid fever depends upon a specific poison obtained from typhoid patients. Other putrid matter and decomposing organic substances, and. at any rate, the filth of privies and dung-heaps, with which the typhoid dejections may be mingled, cannot produce the disease, since this instance shows that the drinking-water of the town had been fouled by these substances for years without producing any bad result. 3. The ordinary filtration of contaminated water by its passage through the ground, will not disinfect the water or furnish any protection against the action of the typhoid poison.—*Deutsch. Archiv f. klin. Med.*, xi. 1874. *Rundschau*, Nov. 1874.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE TEACHING OF SPECIALTIES IN THE MEDICAL SCHOOLS.

In a recent issue of this Journal we expressed the opinion that our system of Medical education would be improved by establishing special chairs in the general courses of lectures at Medical Colleges, premising, however, that the instruction in all these special departments should be given with the sole idea of their utility to the general practitioner. Allusion was also made to the advances which have already been brought about in this direction. In the larger Schools of Medicine, physicians specially learned and skilled in diseases of the eye, the ear, the skin, the chest, the nervous system, in syphilis and in gynæcology, now impart instruction during some portion of the curriculum. Surgery, in its higher branches, has been so long recognized as a necessary specialty that it is hardly looked upon as a specialty at all. In some of the smaller schools, however, specialties are not yet taught: and even in the larger schools they are often so subordinated to what is styled the general practice of medicine, that many of the students are in danger of neglecting to acquaint themselves with elementary principles and methods of treatment which ought to be understood by every general practitioner.

In fact there are two dangers, the one to which reference has already been made, that students after hearing a course of lectures on some branch of medicine that has been classed as a specialty, may imagine themselves competent to treat the most difficult cases that come under their care; and the opposite danger, that they will neglect instruction in specialties altogether. because they are made to appear as though they were divorced from general practice, and because they are sometimes taught with too much minuteness, as though each student were being educated to rank as an expert in the specialty.

In order to teach a subject well the teacher should have a vast fund of experience and information as a basis on which to found the elementary principles he teaches. This is the reason why a specialist is more competent to instruct on the theory and practice of his specialty than other physicians are. But he should remember that his specialty is, after all, only a part of general practice; and that the extent and prolixity of his teachings should not be such as to engross too much of the student's time, nor should he attempt to teach those abstruse points and difficult applications that can be learned only by prolonged, patient and special study. Such a course may serve to advertise the learning and skill of the teacher, but can be of little service to the student who is still engaged in studying the elementary principles of his future profession. If the well-instructed general practitioner desires to study a specialty, let him take a post graduate and special course, and let that course be as thorough as may be desired. The medical student, however, needs to learn such doctrines and such practices only as he can thoroughly master, and as will be of most service to his future patients, taking into due consideration the frequency and acute character of the diseases in question: and he should learn these doctrines and practices from those who understand them best. In regard to the more abstruse doctrines and difficult operations, a concise and general statement, including the methods of diagnosis, will be all that he requires.

But while many specialties in medicine have obtained a recognition in at least some of the schools, there is one important specialty, the teaching of which has been for the most part neglected. The pathology and treatment of diseases affecting the mind have thus far received little attention in American Schools of Medicine. It is true that a few lectures on the subject have been given, but it is doubtful if in any case these lectures have been sufficiently elementary and practical in character, and sufficiently extended to be of much service as a guide to general practitioners in the management of those acute cases of insanity they may be called upon to treat. There seems to be a general impression that insanity is a subject entirely beyond the scope of ordinary physicians—a subject so abstruse that it can be understood only by those who have made it a special study for a long period of time. This, certainly, is a mistake. As in other specialties so in this, there are difficult cases, the diagnosis and treatment of which require special skill and experience; but there are also many and very important cases in the diagnosis of which there is little difficulty, and in the treatment of which students of medicine may easily be instructed.

In some of the European schools the teaching in insanity has been extended and thorough. It is not the fault of the superintendents of American institutions for the insane that the teaching in American schools of medicine has not been equally extended and thorough. As an evidence of this we quote a series of resolutions unanimously adopted at their meeting in Toronto, in 1871. Dr. Kirkbride, Dr. Walker and Dr. Everts had been appointed at a previous meeting as a committee on the subject of didactic and clinical instruction in insanity. The following are the resolutions reported by Dr. Kirkbride, the chairman of the committee, and unanimously adopted by the association, viz.:

"*Resolved*, That in view of the frequency of mental disorders among all classes and descriptions of people, and in recognition of the fact that the first care of nearly all these cases necessarily devolves upon physicians engaged in general practice, and this at a period when sound views of the disease and judicious modes of treatment are specially important, it is the unanimous opinion of this association that in every school conferring medical degrees, there should be delivered, by competent professors, a complete course of lectures on insanity and on medical jurisprudence, as connected with disorders of the mind.

"*Resolved*, That these course of lectures should be delivered before all the students attending these schools; and that no one should be allowed to graduate without as thorough an examination on these subjects as on the other branches taught in the schools.

"*Resolved*, That in connection with these lectures, whenever practicable, there should be clinical instruction, so arranged as to be in no way detrimental to the patients, while giving the student practical illustrations of the different forms of insanity and the effects of treatment."

The following resolution was then adopted, viz.:

"*Resolved*, That a copy of these resolutions be sent by the Secretary to the American Medical Association, the Dominion Association and Ontario Association of Canada, to each State Medical Society, and each Medical College in the United States and British Provinces."

During the discussion of the resolutions Dr. Kirkbride made the following remarks: "In reference to this matter of didactic and clinical instruction in cases of insanity, I may say that it is not a new one. Both were given in Philadelphia long since, as far back as the time of the distinguished Dr. Rush. . . . Lectures on insanity clearly ought to be a part of the regular winter course, and students should be as carefully examined on this subject as on any other branch of medicine, before commencing the practice of their profession."

At a future time we will lay before our readers some important considerations in support of the above resolutions.

SPECIAL INVESTIGATION OF DIPHTHERIA BY THE HEALTH BOARD.

There seems to be no doubt, from the numerous facts now in our possession, that a very large percentage of the mortality in our cities and towns, as well as in the country at large, may be the result of neglecting sound sanitary rules. As an instance, we are told that where towns have long been subject to severe epidemics, these have abated very remarkably after the introductions of proper drainage and a good water-supply system. There is a class of epidemics, however, in which it is not very clear that these same rules operate. This is true of diphtheria, for though, as is well known, many believe it to be miasmatic, in the sense that it originates from some source without the body, there are others who as strongly believe that it is contagious, *i.e.*, propagated by direct contact with the diphtheritic matter of the sick person. This question is certainly an intricate one, and either view presents difficulties, but it should be our aim to try and solve it, for a knowledge of these facts are of the very first importance to any community where the disease prevails. If we do not understand its nature and origin, how can we devise means for its prevention or intelligent treatment? We are glad to know that the Board of Health has authorized the proper investigation of these points. It appears as if this step on the part of the Board is the only one likely to elicit the proper information on the subject.

It is quite evident that our medical bodies, such as our medical colleges and societies, whether city, state or national, are not in a position to gather the data that is necessary. They neither possess the requisite authority for getting this information, nor have they the funds for carrying out a systematic and extended investigation, though doubtless no class of the community is more earnest in its desires to stamp out a deadly malady. While as yet we have no general Sanitary Bureau in this country, and no thoroughly organized sanitary system, our dependence must be placed upon our local boards which, fortunately for us, have shown frequent proofs of their ability to contend successfully with disease.

It will be well for other local boards to take example by New York, and authorize a systematic examination of the prevailing diseases of their locality. It is only by the collection of such facts that we shall be able to lay the basis of sound sanitary laws.

ALUMNI ASSOCIATIONS.

In several of our large cities the Alumni Associations are making very active endeavors to advance the cause of medical education in our Colleges. Already they have excited an influence which is beginning to be felt in every direction. New York has three such organizations which, although in good working condition, require more funds to accomplish their avowed object. If the profession keep this latter fact in mind they will obviate the necessity of being surprised at the forthcoming annual appeals.

Chicago.—There are six hundred and fifty doctors in Chicago.

Reviews and Notices of Books.

Clinical Lectures upon various Important Diseases. By Nathan S. Davis, M. D., Professor of Principles and Practice of Medicine and Clinical Medicine in Chicago Medical College. Second edition, edited by Frank H. Davis, M.D. Published by Henry C. Lea, Philadelphia. 1874.

This little book contains about 283 pages of reading matter, made up of clinical lectures given at the bedside of patients in the wards of Mercy Hospital, Chicago. The subjects considered are—continued fever, periodical fever, rheumatic fever, scarlatina and rubeola, respiratory affections, diseases of the alimentary tract, cardiac disease, neuralgia, and various nervous affections, kidney diseases, etc., etc. The book presents a very satisfactory external appearance, but we are surprised that it ever reached a second edition. From the well-known reputation of the author of these lectures the medical reader had a right to expect a more correct presentation of these subjects than is here given. We are, however, sufficiently charitable to believe that the work has never undergone thorough revision by the author, but has been left to an editor who feels himself compelled to believe that whatever a man of note says must be accepted and reported just as he said it.

As the book now stands, it contains more inexcusable blunders than we have met in a book of equal size in a long time. The therapeutics of the book are amusing in most instances, and are such as might well lead to the conclusion that the prescriber has almost unlimited faith in the efficacy of remedies. If we knew that we were to have continued fever, phthisis (which the author regards as due to tubercles), pneumonia, etc., etc., and were to be treated according to the plans laid down in this book, we should be sorry that we had exposed ourselves to these diseases.

With regard to the grammar, we cannot help directing attention to one sentence as being worthy of special consideration. On p. 16 we have: "Such practice not merely prostrates the patient, but it directly increases the irritability of the mucous membranes with the aggregated glands of Peyer, which so generally constitute an important pathological condition in all varieties of continued fever." There is a pathological item in this sentence also which is somewhat novel. The distinctions between typhus and typhoid fevers given in these clinical reports are such only as lead to the conclusion that the two diseases are identical, which we find hard to believe.

On p. 182 a *regurgitant* murmur is made to appear at the apex of the heart, synchronous with *diastole*, and that in absence of murmur at the base of the heart. This is an item in physical diagnosis of which we have not heretofore heard. On p. 277 we find the following sentences, which may be their own interpreters: "Most recent writers describe three varieties of pneumonia—the croupous, the catarrhal, and the interstitial or chronic form. The second variety differs from the first chiefly in the fact that the inflammation involves the smaller bronchial tubes and air-vesicles, as well as the structure of the lung." Upon the whole, the book does not reflect credit upon the editor, author, nor profession generally; and we sincerely hope, contrary to the expressed wish of the editor in his preface, that it may never be read by any medical student or young practitioner.

A Guide to the Practical Examination of Urine. By James Tyson, M.D. Pp. 182. Lindsay & Blakiston. Philadelphia.

Examination of the Urine. By George B. Fowler, M.D. Pp. 80. D. Appleton & Co., New York.

The appearance of two more little volumes upon the subject of Urinary Examination would imply that, to book-makers at least, the subject is one deserving of more attention than has hitherto been allotted to it. Until quite recently we have been obliged to depend entirely upon foreign literature for information upon this subject. The publication, therefore, of an American book should secure for it the consideration and encouragement which its merits demand.

Dr. Tyson's book contains the information necessary to enable the student and practitioner to make a thorough qualitative and quantitative analysis, and microscopical examination of the more important ingredients of the urine; and the information conveyed is reliable, showing the author to be practically acquainted with the subject of which he treats. Due attention is paid to the volumetric methods, and the precautions necessary in their employment are noted. The *approximative* methods, however, to which the author calls attention in his preface, are altogether too *in*approximative to be of any value. For instance: "From normal urine containing half to one per cent. of chlorides there are precipitated by a single drop of a solution of nitrate of silver, 1 part to 8, in cheesey lumps which do not further subdivide themselves. *If, however*, the *colorides* are *diminished* to one-tenth per cent. or less, the addition of a single drop of the silver solution no longer produces the white cheesey lumps, but a simple cloudiness," etc. A method which does not furnish a reliable indication between .5 per cent. and .1 per cent. is hardly to be commended. With this exception and the fact that the book lacks a table of contents, Dr. Tyson's work is one which does credit to its author.

Dr. Fowler's book unfortunately belongs to a different category. Of its eighty pages we have turned down the corners of more than a dozen which contain either distinct errors or careless and inexact statements. Among the errors we find the formula for Fehling's solution, p. 60, incorrectly given. The author has apparently copied the *English* formula without attention to the fact that English and American fluid ounces are not identical. Among the inexact statements is the following: "Under the blowpipe it is consumed, being of organic origin, and a black ash remains." If it is *consumed* how can a *black* ash or anything else remain? The book bears evidence of careless proof-reading in the frequent occurrence of orhographic peculiarities, such as, diabetes *insipitus*, *miletus*, etc.

Transactions of the Pathological Society of Philadelphia. Volume Fourth. Containing Reports of the Proceedings for the Years 1871, '72, '73. Edited by James Tyson, M.D., Recorder of the Society, etc., Philadelphia. Printed for the Society by J. B. Lippincott & Co. 1874.

In this work a careful attempt has been made to arrange the matter presented, and the effort has been attended with a good degree of success. The history of the specimens presented has been arranged under the following heads: (1) Those belonging to the osseous system; (2) to the digestive apparatus; (3) to the vascular system; (4) to the respiratory system; (5) to the genito-urinary apparatus; (6) to the nervous system; (7) to the organs of special sense; (8) tumors not otherwise classifiable; (9) miscellaneous specimens; (10) specimens from the lower animals.

In several instances specimens have been illustrated by wood-cuts, which materially adds to the interest of the volume. In general, the book presents a very acceptable appearance, and furnishes the profession with reports of cases which are of undoubted value. We predict that if coming volumes, which have been promised, present evidences of the same care in their arrangement and appearance, they will be quite acceptable to the profession.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 13, 1875.

Dr. H. Knapp, President, in the Chair.

ENCEPHALITIS—ABSCESS IN BRAIN—PARALYSIS.

Dr. Lewis Smith presented a specimen with the following history:

Maggie, aged 2 years 8 months, was admitted into the Catholic Foundling Asylum about the 1st of September, 1874. She seemed to be in good health and was plump and well-developed, and her mother stated that she had had no serious sickness. After her admission she continued well, having the usual appetite, amusing herself through the day, and presenting no symptoms to attract attention till December 6th. On the evening of December 5th she ate her supper as usual, and was placed in her crib, *apparently in perfect health.* At 3 A. M. the sister, who was in charge of the ward, found her in severe general eclampsia. Immediately, in addition to the usual local treatment, she administered 5 grains of bromide of potassium, and this was repeated at intervals till six or seven doses were administered. Nevertheless, the spasmodic movements continued, with more or less violence till 1½ P. M., and in the muscles of the neck somewhat longer.

On my arrival at the Asylum at about 6 P. M. I found her lying quietly, rather stupid, but easily aroused. Her vision was evidently good; and she was conscious; the pupils responded to light, and the direction of the eyes was normal; pulse 104, no cough, and respiration natural; temperature, as ascertained by the thermometer in the axilla, also normal. There was no apparent paralysis of the muscles of the face, but the right arm and leg were paralyzed, though the paralysis was not complete. The great toe flexed on tickling the sole of the foot, but the foot itself had little or no motion, and on my attempting to flex the leg, which was extended, some rigidity of the muscles was observed. At times the patient produced slight movement of the thigh upon the trunk. The muscles of the right upper extremity were more flaccid than those of the leg, and below the elbow motion seemed to be totally lost, while a little movement remained of the arm on the trunk. I think that during the two or three days succeeding the convulsions sensation in the right limbs was not entirely lost, though greatly enfeebled. Subsequently paralysis in the right limbs, both of the nerves of sensation and motion, was nearly or quite total, and continued so to death. Nevertheless, tickling the sole of the foot caused some movement of the great toe. On the left side sensation and motion were perfect.

The record of December 9th runs: Has vomiting to-day for the first time; apparently sees well, and appearance of the eyes normal, has no retraction of head or rigidity of muscles of neck, or along the spine; pulse 96, temperature in the axilla normal; lies quiet and with eyes shut; is stupid, but not particularly fretful, when aroused; the bowels move regularly.

December 11th, continues to vomit at intervals; pulse 68. Dec. 16th, pulse 80, temperature 100, vomited once yesterday, none to-day; lies in a constant doze; takes bromide of potassium gr. iv. three times daily. Dec. 18th, moans at times, as if in pain; pulse 180, temperature 100, takes the bromide gr. iv. every four hours.

Dec. 19th, pulse 180, temperature 103; there is convergent strabismus, and the eyes have a wild, almost insane look, but she sees, grasping hurriedly a percussion hammer presented towards her; paralysis of nerves of motion and sensation in the right extremities nearly complete, slight movement still being produced in the great toe by titillation; the vomiting has ceased; tongue covered with a thick fur; movements of the bowels pretty regular; has a slight cough, such as is common in cerebral disease.

Dec. 22nd, lies quietly on her side in perpetual slumber, with eyes constantly shut; pulse 118, temperature 101½; the bowels still move nearly normally; the pupils, exposed to the light, are seen to oscillate, but are constantly more dilated than in health; the urine passes freely; has at intervals circumscribed flushing of the features; a rash like lichen over abdomen and chest, possibly due to the large quantity of bromide of potassium administered. 24th, pulse intermittent; pupils dilated.

Dec. 25th, died in profound stupor to-day, having lived nineteen days from the commencement of the malady.

Autopsy.—About thirty hours after death, weather cool. On removing the calvarium and dura mater, which presented no unusual appearance, the vessels of the pia mater were found rather more injected than usual, but not more so than we sometimes observe in those who die of diseases which do not involve the brain. The cerebro-spinal fluid was scanty, and the surface of the brain rather dry. The vertex of the left hemisphere was unusually prominent, rising perhaps half an inch higher than that on the opposite side. At the highest point, which was about one and a half inches from the median line, was a circular yellowish spot upon the surface of the brain about one and a half inches in diameter. Pressure upon this spot, made lightly, so as not to produce rupture, communicated the sensation of a large cavity underneath filled with liquid, and approaching to within two or three lines of the surface. There was no adhesion or exudation at that point, and the surface of the brain appeared entirely normal, except a little cloudiness of the pia mater over a space which could be covered by a five cent piece, a little posterior to the optic commissure. The incised surface of the brain at a distance from the abscess showed no increase of vascularity. The right hemisphere appeared in every way normal, except that its lateral ventricle was filled with pus, but not distended.

On the left side, occupying the centre of the hemisphere, was an abscess as large as the fist of a child of two years, extending from within two or three lines of the vertex, where its site corresponded with the yellow spot on the surface of the brain, to the roof of the lateral ventricle. Through this roof the abscess had burst, filling and distending the ventricle with pus, and thence making its way into the lateral ventricle of the opposite hemisphere. The whole amount of pus contained in the abscess and the two ventricles was perhaps two ounces. The walls of the left lateral ventricle were much softened, the upper part of the corpus striatum and thalamus opticus being nearly diffluent;

the walls of the right lateral ventricle were slightly softened, but to less depth. The parieties of the abscess, which extended from the roof of the ventricle to the vertex, as already stated, were indurated to the depth of one and a half lines in consequence of proliferation of the connective-tissue, except at the base of the abscess, which corresponded with the roof of the ventricle where softening had occurred. The spinal cord, so far as it could be examined from the cranial cavity, had the usual vascularity, but was slightly softened. The diseased portion of the brain was sent to Dr. Heitzmann, immediately after its removal, who will state the microscopic appearances.

The cause of the encephalitis from which the abscess resulted was obscure. This inflammation, so far as can be ascertained, was idiopathic, which is known to be a rare disease. There was no history of otitis, which is one of the most frequent causes of cerebral abscess, nor of heart disease, so as to produce embolism. It seems probable, since there was no fever till about the fourth day after the convulsions, that an abscess had primarily occurred in the hemisphere between the roof of the ventricle and the vertex, possibly weeks previously. The bursting of this into the lateral ventricle, and the constitutional disturbance, inflammation and softening to which this would inevitably give rise afford sufficient explanation of the history of the case, after the commencement of the convulsions.

It is quite customary to refer the paralysis of young children to disease of the spinal cord, and if no opportunity occurs of discovering the true lesion by an autopsy, it is usually taken for granted that the malady has a spinal origin. This case, however, shows that sudden and incurable paralysis sometimes occurs in very young children from brain disease, as it does in the adult. Indeed, as regards the laceration and destruction of brain substance, the condition was very similar to that in severe apoplexy of the adult, which so often gives rise to hemiplegia. It is well known that in right hemiplegia of the adult the loss of speech is common. This child also lay quiet and speechless, but no attempt was made to discover whether or not speech was possible, as no attention was given to this feature of the case.

Dr. Heitzmann made the following report of the microscopic appearances:

The left hemisphere of the brain brought to me by Dr. Lewis Smith, about half an hour after having been removed from the body of the child, was very soft, more so than we find it in the healthy condition of the same in children. The internal membranes of the brain were in a high degree hyperæmic, and a little dim, especially on the basis. On the lateral surface of the parietal lobe there appeared a yellow patch, of the diameter of about 1½ inches, transparent through the arachnoidea and pia mater. After hardening the specimen in a solution of bichromate of potash, I removed the upper portion of the hemisphere, when an abscess presented itself of the size of about a child's fist, located in the white substance of the hemisphere, divided into two parts by a segment, surrounded by a wall of harder consistence than the adjacent tissue. The latter was softened by œdema.

By applying some pressure on the wall of the abscess, a large quantity of pus issued forth from the open lateral ventricle, so that a communication between the two cavities was evident. The cerebellum and the medulla spinalis, of which I also received a portion for examination, presented only a softer consistence than in the normal state.

The microscopic examination of the freshly-removed pus was very interesting. In the same were suspended a number of granular and rodlike corpuscles, which moved freely in the liquid, the so-called micrococci and bacteria. Besides these, there were dispersed plaques of greatly varying sizes, composed of a number of closely situated dark granules. Most of these plaques were several times larger than ganglion-globules. In some of them there were observed some indistinct nuclei.

The largest portion of the pus consisted, of course, of pus-corpuscles, with one, two or more nuclei; some of them were also without nuclei. These corpuscles being examined with a high power, showed very distinctly the structure of the protoplasma similar to that of corpuscles of the blood of men which I have described two years ago. The only difference between the two is, that in the pus-corpuscles the living matter appears in the form of granules of a larger size than those of the blood-corpuscles. Moreover, in the pus there were corpuscles corresponding in their shape and size to those of ganglion globules, with different transitions of their protoplasma into pus-corpuscles, appearances which (as far as I am aware) have only been described by Meynert of Vienna and Robinson of this city. Similar transitions were found in the layer of nuclei of the gray matter of the brain, in the immediate vicinity of the abscess.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, January 22, 1875.

Dr. Peaslee, President, in the Chair.

The paper for the evening was read by Dr. J. C. Peters, and consisted of a historical sketch of the origin and progress of the Medical Library and Journal Association of New York. The first meeting preparatory to the organization of this Society was held at the house of Dr. Isaac E. Taylor, in August, 1864. All the earliest meetings were held at the same place. The first President of the Association was Dr. Edward Delafield, and many meetings were held at his house. The original design was to establish a medical reading-room, where all the most important medical journals could be found, and also to have reunions in imitation of those held at the Royal College of Surgeons in London. Furthermore, it was designed to make the library a nucleus for a medical club-room. In some respects it had been necessary to depart from this original design.

The first rooms occupied by the Association were at the corner of Fifth Avenue and 22d Street, and the rent paid was $600 a year. The janitor was a small boy, who, besides being dirty and shiftless, seemed to have a supreme delight in being absent when his services were most needed. The next rooms occupied were at the corner of Broadway and 18th Street. The services of a janitor were there dispensed with. The next room occupied was a dark, hot, badly ventilated back-room, upon Madison Avenue. There the Association had first a female janitor, and then a male, and the salutations were the crowing of a cock and the bark of a dog. But at this place the rooms were open regularly, and the first regular start at least was given to the Association.

The rooms that are at present occupied by the Association, are comparatively pleasant, and are already overflowing both with members and books. Notwithstanding this present comparatively easy and prosperous state of affairs, the annual income of the Society is now, at the end of ten years, less than $3,000. Some of the members do not pay at all, and there are very many who are exceedingly dilatory in this respect. These remarks were made in behalf of *all* our medical societies. In general, the most prompt to pay are those who are least able, and those who are best able to pay are most dilatory, and, in some instances, have refused to pay upon the least excusable ground. The executive committee have resolved to post the names of members neglecting to pay their dues, which will save the collector and treasurer very much labor, and it is believed, will be beneficial to the Association.

About ninety-four journals are now taken, and the library contains about 3,500 volumes.

In the autumn of 1864, the officers of the Association were for the first time recommended by a Committee on Nomination.

Dr. Edward Delafield was nominated and elected President.

The following gentlemen have since that time served as Presidents of the Association:

Dr. Edward Delafield, 1865–6; Dr. Gurdon Buck, 1867–8; Dr. Isaac E. Taylor, 1869–70; Dr. Isaac Hubbard, 1871; Dr. Alfred Underhill, 1872; Dr. J. C. Peters, 1873–4; Dr. Peaslee, 1875.

The rooms are open the greater part of the day and evening, where subscribers may go and read and study at their leisure. The library consists of a respectable collection of medical books, and among these are the medical libraries of the late Drs. Batchelder, Elliot, and Foster. The stock of medical journals is steadily increasing.

Dr. Hubbard remarked that the success of all associations depends, in a very great degree, upon the punctuality of payment of dues among the members. It was this that kept this Association alive amid its darkest hours. Every member should feel himself under obligation to pay his annual dues to any such Association just as he pays any other indebtedness incurred in business relations.

Discussion was continued by Drs. Burrall, Emerson, Sell, Post, and Peaslee.

Dr. Peaslee fully endorsed posting every member's name who was dilatory in the payment of his dues. He offered the suggestion that inasmuch as the original idea of the Association had been somewhat departed from, perhaps it would be well to concentrate their energies in making it a *Journal* Association alone, and relax them somewhat in the direction of establishing a library in the same connection. This was suggested in view of the fact that a sister society had already taken steps towards founding a library, where in one year they would collect double as many books as the Association now had. Would not their energies, concentrated in the direction of making the Association a Journal Association and not a Library and Journal Association, be more profitable than an attempt to carry out the two in conjunction?

After extending the customary vote of thanks to the author of the paper, the Association adjourned.

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Occupation and Longevity.—The opinions of country doctors all over the State have, during the past year, been obtained by the Massachusetts Board of Health, with a view to determine the effect of occupation on longevity. It appears that a table collated for twenty-eight years shows the average age of farmers at death to be 65.13 years—figures far in advance of any other callings, and greatly exceeding the lifetime of active mechanics, not in shops, who, averaging 52.62 years, appear next on the list. The opinions of the physicians consulted also show that the farmer's chances of long life are somewhat greater than those of any other class.

Correspondence.

IS IT ALL TRANCE AND TRICKERY?

To the Editor of the Medical Record.

Sir:—The paper of Dr. Geo. M. Beard, recently read before the County Medical Society, and published, in abstract, in the last number of your journal, deals with a subject of more than ordinary importance, a subject of so much interest that for the last century scientific men of all civilized countries have labored in vain for a perfect solution of the physiology of the several mental states that Dr. Beard has at last made so clear.

I think, however, this gentleman dismisses the subject too lightly when he pronounces the various states of unconscious cerebration as mere "trickery and trance." Carpenter and other distinguished physiologists take an entirely different view of these questions, and too many well-known and well-authenticated instances of psychic phenomena are on record to dismiss this subject with Dr. Beard's verdict. The detection of all the humbug and deceptions of so-called spiritualism, and disclosures of clap-trap have always followed too soon for any right-minded individual who thinks and investigates for himself to be deluded any longer. There are conditions, however, that must attract the attention of unbiassed observers. Setting aside animal magnetism, which is a term only used by charlatans, and "psychic force" which has been proved by competent observers not to exist, we still have to search for and study a condition—I may call it a force which is neither "trickery" nor "trance." No one can deny that certain individuals may impress others, that the weak yield to the strong, that certain individuals act in direct opposition to their instincts and knowledge of right and wrong when influenced by others. The word "trance" is too vague, too broad to cover all the delicate phenomena of the several interesting states commonly denominated mesmerism, clairvoyance and "mind-reading." Expectant attention and unconscious muscular action explain some of the phenomena, but even after divesting them of their quackish and catch-penny character, there is a great deal left. The report of the French Academy is a scientific example for committees in general to follow.

There is no doubt but that the man Brown and others have degraded the faculty developed in them, but I have myself witnessed and tested too many of these phenomena to slur them over. We should "rule out" superstition and trickery, but even then we have to look the matter squarely in the face.

The popular examples of the transmission of a yawn —both persons being unconscious of the action; for the fact that one person, by simply imitating the motion of the jaws with his hands, may induce it in another, are exhibitions of this unknown influence.

To study the transmission of voluntary impressions, would it not be well to answer the following queries?

1. Can an impulse or influence be transmitted from A to B without cognizance of either, but with response from B?

2. Can a volitional mandate be transmitted from A to B, with knowledge of A, and ignorance and response of B?

3. Can a volitional mandate be transmitted from A to B, the character of which is not known to B, but he alone knowing that there is an action to be performed?

Certainly these phenomena have not been clearly accounted for. Even Dr. Beard himself was unsuccessful in exposing them at a late meeting of the Society of Electrology and Neurology, and many others are unable to exert this power, in opposition to his statement that *all* may be so influenced—of course the claims of those pretenders who assert almost that they can see through the bones of the cranium, should be received *cum grano salis*—but there are many truthful and honest people who possess a faculty that is astonishing in the extreme.

Mr. Beard, and Dr. Carpenter, of England, have really written upon these subjects in a scientific and unprejudiced manner, and after reading their productions, all will, I am sure, attach much importance to the communication of mental impressions, and the productions in consequence of certain involuntary and unconscious muscular movements.

All of these things are not "trickery," and therefore they should not be considered as such without further study.

ALLAN MCLANE HAMILTON.

117 EAST 26TH ST., N. Y., Jan. 23, 1875.

New Instrument.

AN IMPROVED SPECULUM.

PROFESSOR DANIEL T. NELSON, M.D., of Chicago, describes, in a recent number of *The Chicago Medical Examiner*, a new uterine speculum. It may in reality be called a modification of Nott's instrument, but differing from it in having the lower blade longer and of better shape to receive the neck of the uterus, and in having handles for elevating and holding the upper blades.

The measurements of the instrument are as follows: Lower blade, 4½ inches, extending beyond upper blades ⅝ of an inch; length of instrument, including handles, 7½ inches. The upper blades are made shorter than the lower, to correspond with the anatomy of the parts.

To introduce the instrument: The patient reclines on the back upon the gynæcological chair, with the hip near the edge of the chair. Having ascertained the position of the os uteri, grasp the speculum with the right hand, with the forefinger resting upon and projecting beyond the lower blade, and hold the handles vertical. Then carefully introduce the forefinger into the external organs and follow it with the instrument. When the instrument has passed beyond the external organs, it should be rotated so that the handles shall lay horizontally; then, pushing the lower blade along the posterior wall of the vagina, it will pass under the posterior labium of the os. Then compressing and bearing downwards and backwards upon the handles, the anterior vaginal wall will be raised and the os exposed, when the handles can be fastened by the thumb-screw. The instrument is self-retaining when sufficiently expanded.

If the os is not at first exposed, the instrument, partially expanded, may be withdrawn a little so as to allow the lower blade to pass under the os; or the os may be raised by the forefinger inserted through the expanded instrument, by raising the anterior wall of the vagina, there being ample room for the forefinger to pass between the expanded upper blades. Or the os may be raised into the field of the instrument by a Simpson's sound, or like instrument, used as a lever. When the os is exposed, the uterus may be held in the field by a tenaculum, which can be fastened to a hook on the right upper blade.

Dr. Nelson claims the following advantages for this instrument:—

1. Its length is such as to expose the uterus *in situ* by bringing it *nearer* the external organs, rather than pressing it deeper into the pelvis, as do the longer instruments.
2. It also gives a *better light*, which is often of great importance, especially when the physician is obliged to visit the patient at her home.
3. The instrument is so short, and the upper blades expand in such a manner as to readily allow of the rectifying of any malpositions of the uterus through the expanded instrument, which is impossible in all the long instruments.
4. A large portion of the *vaginal walls* are exposed for examination and treatment, if needed, and by rotating the instrument the whole may be exposed.
5. While the blades are short they are capable of expanding the vaginal walls more than any of the short instruments, and, indeed, more than most of the long ones.
6. The urethra and meatus are not pressed by the instrument, but lie between the upper blades, where they may be readily examined and treated if necessary.

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ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 24th to January 30th, 1875.

BAILY, J. C., Surgeon.—Granted leave of absence for one month, provided he furnishes a suitable substitute during his absence. S. O. 11, Dept. of the South, January 27, 1875.

BACHE, DALLAS, Surgeon.—Temporarily assigned to duty at Baltimore, Md., Attending Surgeon and Examiner of Recruits. S. O. 16, A. G. O., January 26, 1875.

KNICKERBOCKER, B., Assistant Surgeon.—Temporarily assigned to duty at Fort Vancouver, until the season will admit his joining his proper station, Fort Colville, W. T. S. O. 5, Dept. of the Columbia, January 11, 1875.

WILSON, A. D., Assistant Surgeon.—Assigned to duty as Post Surgeon at Camp McDowell, A. T. S. O. 2, Dept. of Arizona, January 7, 1875.

JACKSON, D., Assistant Surgeon.—Assigned to temporary duty at Fort Concho, Tex. S. O. 10, Dept. of Texas, January 18, 1875.

The Medical Examining Board, in session in San Francisco, Cal., is dissolved, and the members thereof will rejoin their proper stations. S. O. 17, A. G. O., January 28, 1875.

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MEDICAL ASSOCIATION OF THE EASTERN DISTRICT, BROOKLYN, N. Y.—At the annual meeting of the Medical Association of the Eastern District of Brooklyn, held January 21st, 1875, the following officers were elected:—President, J. A. Jenkins, M.D.; Vice-President, W. G. Russell, M.D.; Secretary, G. P. Griffing, M.D.; Treasurer, W. P. Morrissey, M.D.; Librarian, J. H. La Roe, M.D.; Delegate to American Medical Association, W. F. Sanford, M.D.

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"EAST RIVER MEDICAL ASSOCIATION" OF THE CITY OF NEW YORK.—Officers for the year 1875:—President, Robert A. Barry; Vice-Presidents, Alex. W. Stein, James W. Bowden; Secretary, William J. Purcell; Treasurer, Verranus Morse.

Medical Items and News.

Cholera on board Ship.—The ship *Forfarshire*, which left Calcutta for Demerara on the 18th of August last, with one hundred and fifty coolies on board, had an outbreak of cholera when two days out. Within eight days forty cases occurred among the coolies, and in five days no fewer than thirty deaths took place. To add to the distress of the situation, measles appeared among the children, five of whom died from this disease, in addition to twenty-two from cholera. The death-list on the passage amounted to fifty-two souls. There is no information as to the presence of a medical officer on board.

Harvard College.—The corporation has erected a small pavilion hospital in an isolated position, with every convenience for taking care of the sick, thus enabling the college to protect itself in the future against epidemics, with which on one or two occasions it has been threatened.

The pecuniary results of the change in the system of teaching in the medical department are said to be favorable this year. Whereas in two previous years there had been a considerable deficit, the accounts of last year show a surplus of over three thousand dollars. This, with a rapidly increasing class and a strong indorsement from the public in the shape of a handsome fund subscribed for a new building, make the future unusually promising.

The Doctrine of Heredity.—Mr. Galten, in his recently published work, *English Men of Science, their Nature and Nurture*, gives the number of notable relatives of each grade which scientific men on the average possess. Thus, 100 scientific men have 28 notable fathers, 36 brothers, 20 grandfathers, and 40 uncles. The influence on the paternal and maternal lines is found to be approximately equal. Thus 100 scientific men have 34 distinguished relatives on the paternal side and 37 on the maternal.

An invention has been patented in England, by Mr. T. Harding, which is intended to prevent the entrance of sewer-gas into dwellings. Connected with the main sewer is a pipe two inches in diameter, and at the top of the pipe is a ball, so fixed that it allows an aperture of a quarter of an inch all round, through which the sewer-gas may escape from the pipe. Running up outside of the large pipe is an ordinary gas pipe, and just underneath the ball at the top of the sewer pipe a set of burners is so arranged that when lighted they make a complete circle of fire. The ball prevents the sewer-gas from rising through the centre, and it cannot escape through the flame, which entirely surrounds the aperture. The consequence is that the sewer-gas mingles with the ordinary gas, and is consumed, adding, it is said, greatly to the brilliancy of the flame. The invention may be easily applied to the public lamps, and we are informed that a one-inch pipe may be used, and that the increase in the illuminating power that would be thus gained is enormous. Another advantage is that the ball and the upper part of the pipe soon get intensely hot, and the heat draws the foul air from the sewers, leaving them perfectly free.

A good deal of laughter was occasioned in the French Chamber the other day, when Dr. Testelin, in demanding a school of medicine for Lille, in addition to those proposed for Lyons, etc., declared that the number of doctors had decreased in the town that he represents, while the population had increased. The doctor appeared astonished at the amusement caused by this statement.

The following comparisons in reference to street cleaning is from a statement made to the Philadelphia Board of Health, December 28th. Paris, with a population of over 2,000,000, with 578 miles, or 8,138,240 square yards, of paved street surface, and containing over 162,000 buildings—conceded to be the cleanest city in the world—receives 365 sweepings per year, at a total net cost per year of $170,000, or for each sweeping, $466. New York, containing a population of at least 1,000,000, and having 270 miles, 3,801,606 square yards of paved street surface, and 70,000 buildings, receives about an average of 104 sweepings per annum, at a cost of $850,000, or for each sweeping, $8,173. Philadelphia, having a population, say of 750,000, 143,000 buildings, 450 miles of paved streets, or 6,335,000 square yards, receives (on liberal estimate) 12 sweepings per annum, at a cost (salaries not included) of $327,000, or, for each sweeping, $27,250.

Dr. W. R. Gilmore, ambulance surgeon at the Reception Hospital in Ninety-ninth street, died on Friday, the 29th ult., at the hospital, from the effects of a very curious wound, received on the Sunday previous, when he was walking out in the neighborhood of the hospital with the House-Surgeon, Dr. Goelet. The sidewalks were very slippery from the snow-storm, and Dr. Gilmore slipped and fell. The point of the umbrella which he was carrying entered his eye, inflicting a painful and dangerous wound. He walked back to the hospital, and was attended by Prof. Jas. R. Wood and others, until his death, as above stated. The deputy coroner, on examination, decided the cause of death to be compression of the brain and fracture of the orbital plate.

Sir Henry Thompson has resigned the office of surgeon at University College Hospital, London.

Dr. R. W. Taylor has been elected a Corresponding Member of the Society of Natural Sciences and Medicine of Dresden.

Dr. Lionel Beale has undertaken the duties of Professor of Physiology in King's College, London, left vacant by the appointment of Dr. Rutherford to the University of Edinburgh.

New Medical Dictionary.—The Messrs. Longman, of London, are making arrangements for the publication of a Dictionary of Medicine, in one volume, under the editorship of Dr. Quain.

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Weekly Bulletin of Meetings of Societies.

Monday, Feb. 8.—New York Ophthalmological Society; New York Medico-Historical Society.

Tuesday, Feb. 9.—Adjourned Meeting of the Medical Society of the County of New York. "The Tumors of the Optic Nerve," Dr. Hermann Knapp. Exhibition of a trocar, designed especially for ovariotomy, aspiration, and transfusion, by Dr. Simon Fitch. American Microscopical Society; Yorkville Medical Association.

Wednesday, Feb. 10.—New York Pathological Society.

Thursday, Feb. 11.—New York Laryngological Society; Brooklyn Pathological Society; Jersey City Pathological Society.

Friday, Feb. 12.—Medical Library and Journal Association. "Analyses of One Thousand Cases of Skin Disease, with Remarks on Treatment," Dr. L. D. Bulkley. Harlem Medical Association.

Saturday, Feb. 13.—New York Medical and Surgical Society.

Medical Society of the State of New York.

SIXTY-NINTH ANNUAL MEETING.

First Day—Morning Session.

The Society met, pursuant to statute, at Albany, on Tuesday, February 2d, 1875, at 11 o'clock A.M., in the Common Council Chamber.

The meeting was called to order by the President, Dr. George J. Fisher, of Sing Sing, and a prayer was offered by the Rev. Doctor Bartlet.

INAUGURAL ADDRESS.

The President then delivered his inaugural address, embracing a variety of topics of interest to the Society and the profession throughout the State. Referring to the rapid growth of medical literature he mentioned the fact that over four hundred and fifty medical journals had at one time or another been published in the United States and Canada, the majority of which had lived an average of about five years. He had no doubt that a lack of nerve-centres had a decided influence upon their viability, nor of the fact that there were many yet in existence which would ere long fulfil their natural destiny. He next referred to the growing tendency to specialism; deprecating the disposition on the part of so many young men to devote their attention solely to the cultivation of some well-defined branch of practice, to the neglect of all others, which physicians he chose to term "one-organ men." No doubt the chief reason for such a course, was that they witnessed on the part of older men who had rendered themselves eminent in some particular branch, a degree of success in both a pecuniary and a professional sense which had been denied to the general practitioner. He recommended that the Secretary should be granted the privilege of sending not more than fifty copies of the published Transactions of the Society to medical journals for notice; and further, that as a mark of respect to the deceased members of the Society, memorial leaves, with suitable inscriptions thereon, should be introduced into the volumes of Transactions to be published in future.

Referring to the numerous laws relating to the medical profession, which had been passed by the Legislature, many of which modified or did away with antecedent ones, he proposed that in order to correct the uncertainty which has resulted as regards the nature of the laws actually in force, some measures should be taken by the Society for their thorough codification.

The law passed last year was mentioned, and some features of the British Registration Law pointed out, and the President suggested that a law something similar to the latter might meet all the needs of society in this country, viz., the information of the public as to who were qualified practitioners.

Two other topics, which he had at first purposed mentioning in the annual address, were of such importance that he thought best to call the attention of the Society to them at the earliest hour practicable, in order that the proper action might be insured, viz., the time and place of meeting of the Society, and the election of permanent members. Regarding the first, he thought that the Society had fully determined that the time for holding its meetings could not be more unseasonable. As for the place, there was less to be said in favor of a change, although for many reasons it might be desirable. The desirability of changing the mode of electing permanent members was considered by the President at considerable length, and the custom of electing honorary members was likewise referred to. Lastly, the President advocated the abolition of the so-called annual address, in addition to the address at the opening of the session, as imposing a heavy burden on the presiding officer, and consuming valuable time which might better be used in other ways.

Dr. A. Jacobi moved the appointment of a committee to consider the suggestions of the President, with instructions to report on the same at as early an hour as possible, especially that portion relating to changing the time and place of meeting.

COMMITTEES.

The following committees were then appointed by the President:

On the President's Address.—Dr. A. Jacobi, Bates and Jenkins.

On Credentials—Drs. Wm. C. Wey, Thomas F. Rochester and Thompson Burton.

On Arrangements and Receptions.—Drs. F. Hyde, Wm. H. Bailey, and N. C. Husted.

Business Committee.—J. V. P. Quackenbush, D. B. St. John Roosa, and Ellsworth Eliot.

On Ethics.—Drs. Thos. Hun, E. Krackowizer, and J. G. Adams.

HYSTERICAL AMBLYOPIA.

Dr. D. B. St. John Roosa, of New York, next read a paper on "Hysterical Amblyopia, with Concentric Limitation of the Visual Field," the whole of which will be published in a future number. A discussion followed, in which Drs. A. Jacobi, Squibb, Matthewson, and Pooley joined: the former calling attention to the distinction to be made between hysterical and simulated diseases.

A communication was read from Governor Tilden, inviting the Society, its guests and the members of the Albany Co. Med. Soc., to the executive mansion on the following evening. On motion, the invitation was accepted.

Several papers, including a biographical sketch of the late Professor James McNaughton, of Albany, were read by title and referred to the Committee on Publication.

STRANGULATED HERNIA.

Dr. Hyde read a paper on strangulated hernia, and was followed in discussion by Dr. Squibb, who called attention to intoxication by conium as a means of producing relaxation of the muscular system to a degree which favored taxis.

Dr. Govan moved the appointment of a committee to invite the Governor, State officers, and members of the Legislature to be present during the sessions of the Society. Carried.

Dr. Paddock, of the Massachusetts State Medical Society; Drs. Morgan, Newton, and Rogers, of Vermont, and Dr. Hoar, of Maine, were presented, after which the Society adjourned to 3.30. P.M.

First Day—Afternoon Session.

The Society having assembled pursuant to adjournment, the President announced the following

COMMITTEES.

Committee on Nomination of Officers for the Ensuing Year, 1st District, Dr. Thomas Addis Emmet; 2d, Dr. J. Foster Jenkins; 3d, Dr. S. Oakley Vanderpoel; 4th, Dr. Thompson Burton; 5th, Dr. Alonzo Churchill; 6th, Dr. Wm. C. Wey; 7th, Dr. F. Hyde; 8th, Dr. E. M. Moore.

Committee to invite the officers of the State government to be present at the meetings: Drs. William Govan, Thompson Burton, and Arthur Wolfe.

FOREIGN BODIES IN THE EYE.

Dr. T. R. Pooley, of New York, read a paper entitled "Foreign Bodies in the Eye." He detailed several cases illustrating the modes of production and effects of such injuries, together with the method of operating. Enucleation of the injured eye was insisted on as the only safe way of preventing sympathetic inflammation of the sound eye when we were perfectly sure of the presence of a foreign body of any sort which we are not able to remove.

Dr. Vedder, of Schenectady, related a case, the results of which he thought opposed Dr. Pooley's opinion of the necessity for enucleation:

A man, while chipping steel, had a fragment enter his eye. Blindness, opacity of the crystalline, and pain followed, and he (the doctor) gave an unfavorable prognosis. In three or four months, however, the crystalline was absorbed, and with the aid of a proper glass the man could see. He believed that the foreign body remained in the eye, and the absence of unfavorable results was owing to its becoming encysted.

Dr. Agnew, of New York, quite agreed with the writer of the paper on the necessity for enucleation under the circumstances he mentioned. He believed that the form of sympathetic disease induced in a fellow eye, even when the trouble is not in the ciliary region, is so insidious and intractable that the only way to prevent loss of sight in the uninjured eye is to remove the diseased organ.

Dr. Roosa, of New York, did not consider the absorption of the crystalline, as mentioned by Dr. Vedder, a sufficient cure, nor could he consider it justifiable to leave the injured eye with its foreign contents *in situ*.

Dr. Vedder said the case came under his observation twenty years ago, and had as yet had no consecutive trouble.

Dr. Chapman, of Medina, mentioned a case reported in The Medical Record of May 1, 1873, by Dr. Knapp, in which a diseased ball had been removed. The patient had been seen by him the day before, and had suffered no return of the affection.

TREASURER'S REPORT.

Dr. Charles H. Porter, Treasurer, submitted his report, which was referred to an auditing committee composed of Drs. Ferguson, Mynders, and Lewis.

SUB-PERITONEAL CYSTIC TUMORS.

Dr. J. V. P. Quackenbush, of Albany, read the histories of two singular cases of what he called "sub-peritoneal cystic tumor."

In the first a tumor presented posteriorly to the cervix uteri in a woman in labor, and was gradually forced downwards in front of the child's head. When punctured it yielded a considerable quantity of serum, and relieved the labor of an obstacle to its completion. The second case was a young woman, who had, not long before the doctor saw her, arrived in this country, with a history and symptoms that strongly indicated pregnancy. A careful examination proved the fallacy of this supposition as well as that of ovarian tumor. The patient died, and a cyst was found between the abdominal walls and the peritoneum lining it, which contained a large quantity of clear fluid. The uterus and its appendages were normal and healthy.

Dr. A. Jacobi, of New York, commenting on the novelty of these cases, said that there appeared to him to be but two or three ways of explaining them; one was the occurrence of hemorrhage, the hemorrhagic mass being encysted, the clot absorbed, and only a serous fluid remaining, but in such case we would have the coloring matter of the blood remaining. Another cause would be the closure of a gland duct and accumulation of the secretion in quantity to form a cyst, but he was unaware of any glandular organs in these localities. The third and most probable cause was connected with errors in fœtal development; of these some anomalous development of the cords of Muller, he thought, might be the most probable cause, but declined to give any decided opinion.

TREATMENT OF UTERINE FIBROIDS.

Dr. Thomas Addis Emmet, of New York, read a very practical paper on the "Treatment and Removal of Fibroids from the Uterus by Traction." The interesting point in the paper was the mode of formation of a pedicle in these cases.

Dr. Benedict, of Onondaga, discussed the paper.

DISINFECTION AND SALICYLIC ACID.

Dr. S. O. Vanderpoel, of New York, read a portion of a paper on "Disinfection and Disinfectants," and was followed by

Dr. E. Squibb, of Brooklyn, who presented to the Society a very valuable paper on "Salicylic Acid," a new product of the action of carbonic acid on phenol, which is just commencing to excite a great deal of attention as a disinfectant and anti-ferment.

Dr. Castle, of New York, mentioned the price for which the acid, made by Kolbé's process, is being sold in Dresden.

PAPERS READ BY TITLE.

The following papers were read by title, and on motion, referred to the Committee on Publication:—

"Fracture of the Skull with Depression, followed by Hemiplegia: Result of Trephining in Remedying the Paralysis." By Dr. R. W. Pease, of Syracuse.

Report of Dr. H. S. Chubbuck, Delegate to the American Medical Association.

Report of Dr. Hiram Corliss, of Greenwich, Washington Co., Delegate to the Maine and Massachusetts State Medical Societies. Read in full, together with a communication from the "Veteran member," regretting that ill-health prevented his attendance.

On motion of Dr. Vanderpoel, the President was requested to telegraph the sympathy of this Society to Dr. Corliss.

Dr. Ed. H. Parker offered a petition of an aggrieved member. It was referred to the Committee on Ethics.

On motion, it was decided to meet Wednesday morning, at half-past nine o'clock.

Recess until half-past seven.

First Day.—Evening Session.

PATHOLOGICAL CHANGES IN NERVOUS DISEASES.

The Society met as agreed, at half-past seven, to listen to a paper by

Dr. John P. Gray, of Utica, on "The Pathological Changes that Occur in Nervous Diseases, especially Insanity." The most notable features were the use of the term "fatty involution" to express a variety of degenerative changes, and the illustration of the pathological conditions mentioned in the paper, by means of macro-photographs projected by means of a calcium light upon a screen. After interesting the audience for an hour and a half, he was followed by a lecture by

Dr. Louis Ellsberg, of New York, on

ACOUSTICS.

Many interesting experiments were made to illustrate the production of sound, its character as regards pitch, *timbre*, the mechanism of the human voice, etc. Both gentlemen received a unanimous vote of thanks, and the Society adjourned at ten o'clock, tomeet on Wednesday morning at the hour appointed.

Second Day.—Morning Session.

The Society met pursuant to agreement, at half-past nine o'clock, and the meeting was opened with prayer by the Rev Anson J. Upson, of Albany.

MISCELLANEOUS.

The Committee on Reception and Arrangements reported that the following additional members had arrived and were present by invitation: Drs. S. S. Ellis, Schenectady; H. W. Bourne, of Otsego; E. G. Crittenden, Clifton; E. Clark, of Sandy Hill; L. F. R. Chapin and R. J. Eddy, of Glenn's Falls; C. B. Richards, of Broome County; J. Dunn, of Lodi; S. P. Bates, of Malone; T. L. Gibbs, of Washington County. Also the following: Drs. John W. Mitchell, of Providence, R. I., State Medical Society; M. C. Edwards, of Connecticut River Valley Medical Association, of Saxton, Vt.; and Dr. Chapman, of the Connecticut State Medical Society. The report was received and the gentlemen introduced to the Society.

The minutes of Tuesday's session were then read and approved.

Dr. E. Squibb, senior censor for the Southern district, reported they had examined for license, Dr. Ezra S. McClellan, and recommended him for a diploma, and that he be now declared a licentiate of the Society. The report was adopted.

EXPERIMENTS ON ANIMALS.

Prof. Dalton, of the New York County Medical Society, then addressed the Society on the subject of experimentation on animals for physiological and scientific purposes. He said that eight years ago Mr. Henry Bergh, of New York, commenced in a series of newspaper articles, an onslaught on the practice, and it was subsequently followed up by the introduction of a bill in the Legislature for the organization of the Society for the Prevention of Cruelty to Animals. The Medical Society, in 1867, had memorialized the Legislature and procured a modification of this bill, so that experimentation on animals in the interests of science had been continued. Last summer, however, Mr. Bergh had renewed his attacks on the practice, as before, in a series of newspaper articles, published in the *New York Evening Post*, and his evident object was to place the Society under the control of himself and agents. The speaker then referred to the importance of the practice in determining the nature of various diseases, and the favorable results that have been realized, and urged that the Society take some action reaffirming the action of the Medical Society in 1867. With this object in view he offered the following:

Whereas, A renewed attempt has been made during the past year to excite in the public mind a prejudice against the practice of experimentation on animals for medical and scientific purposes; and

Whereas, Intimations have been publicly held out that the Legislature will be applied to for power to suppress or interfere with experiments of this nature, notwithstanding that such interference is expressly forbidden by the existing law, and in opposition to the declared sense of the medical profession; therefore

Resolved, That this Society hereby reiterates the opinions and conclusions on this subject embodied in its memorial to the Legislature, adopted February, 1867, and reaffirms its conviction of the usefulness and propriety of experimentation on animals; also

Resolved, That the President of the Society be instructed, if it should become necessary, to transmit a certified copy of this preamble and resolutions to the two branches of the Legislature and to the Governor of the State of New York.

A discussion followed, in which Drs. B. F. Sherman and Squibb participated, and the preamble and resolutions were adopted unanimously.

Dr. J. G. Adams stated subsequently that he had held some conversation with Mr. Beach, the attorney of Mr. Bergh, and was informed that the latter had no intention of making an application to the Legislature for a change of the law; he was content to carry on the war with Dr. Dalton in the newspapers.

Dr. Vanderpoel believed that this was only a change of *venue;* that finding the profession ready and able to oppose him successfully, he was intending to interest public opinion in the matter so that the law may eventually be repealed.

Drs. J. F. Kendall, Moreau Morris, and B. F. Sherman were named a committee to invite the Health Committees of the Senate and Assembly to be present at the afternoon session of the Society, to hear the report of Dr. Bell on Drainage in this State.

THE PRIZE ESSAYS.

Dr. Thomas F. Rochester, from the Committee on Prize Essays, reported that but two competitive papers had been received for the McCosh prize on the designated subject for 1875, viz.: "School hygiene in reference to the Physiological Relations of Age and Sex to Mental and Physical Education." One of these had the motto, "The quality of the brain is the key to human knowledge," and was a good, practical, common-sense article, well worthy of publication. The other bore the motto, "Salut populi—suprema lex," a scholarly and philosophical essay, for which the prize was awarded to Alexander Hutchins, A.M., M.D., of No. 796 De Kalb Avenue, Brooklyn. No essays were received for the Brinsmade prize.

EFFECTS OF NITRATE OF SILVER ON EPITHELIAL AND GLAND CELLS.

Dr. Mary Putnam-Jacobi delegate for the Medical Society of the County of New York, read a paper entitled, "Effects of the Nitrate of Silver on Epithelial and Gland Cells," accompanied with microscopic preparations. The paper embraced references to the literature of the subject, and detailed the results of numerous experiments on animals and freshly removed portions of human tissues.

Dr. Henry D. Noyes, in discussing the paper, referred to the assistance rendered by the nitrate of silver in the study of the structure of the cornea.

UTERO-GASTROTOMY.

Dr. J. Marion Sims, of New York, made some very interesting remarks on the subject of "Utero-Gastrotomy;" saying, that having had the honor of reading a paper at the last annual meeting on the removal of intra-uterine fibroids by enucleation, he now proposed to speak of the removal of larger uterine fibroids by abdominal section, whether intra-uterine, interstitial, or extra-uterine in character. This operation is now on its trial. It stands where ovariotomy did twenty years ago. It has the same opposition to encounter, and will doubtless achieve the same victory. In this country it has been performed successfully by Kimball, Burnham, Boyd, Storer, Darby; in England by Charles Clay, Fletcher, and very recently by Lawson Tait. Koëberle, of Strasbourg, has cured four out of six cases, while Péan, of Paris, gives us the minute histories of eleven cases, with seven cures, and since the publication of his work, his pupil Urdi has published a work in which he says, that the whole number of Péan's operations up to the present time is twenty, with fifteen cures.

Dr. Sims has recently operated twice for the removal of the uterus, with large fibroid, by abdominal section. The first case was in a feeble state from excessive loss of blood. During the separation of a large fold of intestine from the surface of the tumor, the capsule of the tumor was torn up, large venous sinuses were opened, and the patient suddenly lost about sixteen ounces of blood. She never rallied, and died from the shock and loss of blood in thirty-five or forty minutes after the operation.

The second case had lost large quantities of blood and was quite anæmic, but was thought to be a favorable case for operation. It was done on the 19th of November, according to Péan's method. The patient died in seventy-six hours, of septicæmia. Examination, post-mortem, showed the pedicle in a sloughing condition below the wire clamp; the slough extending along the line of incision in the abdominal parietes, and on the top of the bladder, and in the broad ligaments. There were eighteen ounces of bloody serum in the peritoneal cavity. Péan's method of operating is to make a pedicle of the supra-vaginal portion of the cervix, and to draw this out through the lower edge of the abdominal section by clamp, as in ovariotomy. He transfixes the cervix by a double wire, ties one on each side of the cervix, inclosing the broad ligament on its respective side in the wire. Dr. Sims employed Péan's method in both his cases, but would not use it again; but he advocates the use of the actual cautery. He exhibited a clamp écraseur on the principle of Nott's [and Isaac E. Taylor's], by which he would compress the broad ligament on one side near the body of the uterus, and then sever the ligament with the cautery down to its junction with the cervix. The same method is to be followed on the side, and then it only remains to cut the tumor from the supra-vaginal cervix and cauterize the surface. The several cauterized portions are then dropped into the peritoneal cavity, when, in spite of the eschar, they unite at once by adhesive inflammation to the surfaces with which they lie in contact.

Dr. Sims then exhibited an automatic alcohol blowpipe for heating the cautery irons.

Dr. E. M. Moore, of Rochester, said his views with regard to operations which required the opening of the abdominal cavity had, for several years, been undergoing considerable change, and there seems to be some truth in the idea that it may be as safe or safer to perform gastrotomy for uterine than for ovarian tumors, owing to the adhesions which are so likely to exist in the latter case.

While it is no trifling matter, or an operation to be done without good and urgent occasion, surgeons have to a great extent got over the fear of opening this cavity. A large number of the unfavorable results are undoubtedly from septicæmia. Since Kimball, of Lowell, performed the first operation of this character, this procedure has probably been resorted to more often than the profession were aware. In the case of Dr. Kimball the patient recovered. Last summer Dr. Moore said he had a case of uterine fibroid on which he operated successfully, in which the tumor weighed seventeen pounds. The operation was a modification of the one introduced by Prof. Miner, of Buffalo, in cases of ovariotomy, and called by him ovariotomy by enucleation.* In this case a pedicle was created by separating a portion of the serous membrane from the surface of the uterus and tumor and bringing it into the abdominal wound, where it was retained, as in ovariotomy, and formed a cup which received the blood which might escape, and the discharges, and thus prevented their entrance into the abdominal cavity.

Professor E. R. Peaslee, of New York, called attention to some points in Dr. Sims' remarks. His own experience with this operation commenced one week after Dr. Kimball made his operation. The success or failure of the operation would depend upon a variety of causes, and was at best, even in the opinion of Dr. Sims, a dangerous one. Péan does not operate indiscriminately, but he has operated in a case of fibrocystic tumor even when the woman was nearly exhausted, and in some cases of fibroma with ascites, even when the patient was nearly moribund. Dr. Peaslee had seen but two cases in which he thought the operation was advisable, but did not wish to be understood as opposing it. He was perfectly willing to undertake it when the indications were fulfilled.

Dr. Hurd, of Brooklyn, wished to ask Dr. Sims if he was aware of any objection to the use of the galvano-cautery in the separation of the mass.

Dr. Sims declared his readiness to use it, but, at the same time, would not neglect to put a clamp on the broad ligament to prevent hemorrhage.

Dr. Walter Kempser, delegate from Wisconsin, and formerly attached to the Utica Asylum, was introduced and made some remarks.

DISEASES OF THE EYE.

Dr. C. R. Agnew, of New York, read a paper on "Certain Diseases of the Eye," and their treatment by a modified operation by canthoplasty.

Dr. Geo. T. Stevens, of Albany, reported a "Case of Sarcoma of the Ciliary Body."

RELATION OF URINE TO SKIN AFFECTIONS.

Dr. L. D. Bulkley, of New York, an invited guest, read a paper on the "Relation of the Urine to the Diseases of the Skin."

MISCELLANEOUS BUSINESS.

Dr. A. Jacobi, chairman of the Committee on the President's Address, presented the report.

The Committee deprecated the disposition on the part of specialists to publish so many journals devoted solely to their branches. This could not but have the effect of diverting from well-established journals, devoted to general medicine and surgery, matters which ought to claim the attention of general practitioners. A few special journals were all that were required, and these might be of the nature of reviews, in which one could find the summary of current literature on special subjects, such as therapeutics, etc.

Regarding the tendency on the part of young men to practise specialties, the committee were equally decided. The tendency was to degrade the general practitioner in the estimation of the public. It was too often forgotten that most of our men who have become eminent in certain branches, were doctors before they became specialists.

The proposition of the President respecting the appropriation of not more than fifty copies of the Transactions for circulation among leading medical journals at home and abroad was approved; as was likewise the suggestion regarding memorial leaves to be incorporated in the Transactions; and suitable resolutions to that effect were, subsequent to the reading of the report, adopted by the Society.

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* See Trans. of the Society for 1872, p. 187, and *Buffalo Med. and Surg. Journal* of June, 1869.

The necessity for a codification of the laws relating to the profession was at the present stage of the existence of the Society, of very great importance, and the committee recommended that the matter be placed in the hands of a competent lawyer. Observations were made on the inefficiency of the law passed by the Legislature at its last session, and the suggestion of the President that an effort should be made to establish a law like the one in operation in Great Britain, endorsed.

The points of chief interest in the report of the committee related to the time and place of meeting, and the election of permanent members. Respecting the first, the committee recommended that the time of meeting be changed to the third Tuesday in June, and that a committee be appointed by the Chair to take measures, if necessary, to insure the acquiescence of the Legislature in the change.

After an animated discussion, a resolution to that effect was carried.

The resolution offered by the committee, that all delegates who should serve and attend for four consecutive years, should be eligible for, and should be declared permanent members, was also discussed at length. On motion of Dr. S. O. Vanderpoel, all that portion of the address which related to delegates and permanent membership, was referred to a committee composed of the Chair and two other members, with instructions to report at the next annual meeting. Carried, and the Chair appointed the committee as follows:

Drs. Fisher, of Sing Sing, and Hutchinson and Prout, of Brooklyn.

Dr. Hutchinson, of Brooklyn, called attention to the fact that for two years the names of Drs. Prout and Seeger, of Brooklyn, had been omitted from the published lists of persons eligible for permanent membership, and asked that care should be taken that they are included in the next list, and that they should be marked as eligible since 1872.

PAPERS READ BY TITLE.

The Business Committee reported the following papers by title:—

Memoirs of Andrew F. Little and U. G. Bigelow, by Dr. Levi Moore.

Report of Dr. Salvatore Caro, delegate to Pennsylvania State Medical Society.

Report of Robert Newman, delegate to New Jersey State Medical Society.

Resolutions of the Kings County Medical Society.

The Society then took a recess to half-past 3 P.M.

Second Day—Afternoon Session.

The Society was called to order at half-past three o'clock, by the Vice-President, Dr. H. Jewett.

Dr. William Govan, of the committee appointed to invite the Governor, Lieut.-Governor, and members of the Legislature to take part in the deliberations of the Society, reported that the committee had performed the duty assigned them. The report was accepted and the committee discharged.

UNUSUAL DISEASES OF THE ORBIT.

Dr. Henry D. Noyes, of New York, read a paper entitled "Cases of Disease of the Orbit of Unusual Character or Severity."

Among other cases the doctor mentioned some in which total blindness of one eye had resulted from falls upon and injuries of the frontal prominence. The doctor thought that the blindness in these cases was caused by the force of the blow being transmitted by the orbital plate to the optic foramen, at which point the concussion of the optic nerve was so great as to destroy its ability to transmit luminous impressions.

Dr. Hutchinson, delegate from the Rhode Island State Medical Society, was introduced.

Dr. A. N. Bell read a portion of the report of the Committee on Hygiene, embracing selections from the reports of the following counties, viz.: Albany, Cayuga, Chautauqua, Erie, Genesee, St. Lawrence, Montgomery, Ontario, Saratoga, and Kings.

The report was discussed by Drs. Kendall and Govan.

EMBOLISM AND DIPHTHERIA.

Dr. A. M. Vedder, of Schenectady, gave the history of three cases, as follow: "Embolism of the Central Artery of the Retina," "Embolism of the Axillary Artery," "Diphtheria with Tracheotomy."

Dr. Burge, of Brooklyn, deprecated too early resort to tracheotomy in croup or diphtheria. Many cases, he thought, were able to recover without the resort to so hazardous an expedient. He had seen cases recover without the operation, in which death seemed imminent, and, on the other hand, had seen twenty-three operations, with but one recovery.

Dr. A. Jacobi protested against allowing a patient to suffer where the operation would give him relief at once. The operation he considered to be by no means dangerous, nor was the presence of a simple hard-rubber trachea tube in the windpipe a source of any serious trouble. If superficial ulcerations of the mucous membrane occurred, they were quite as much a result of the influence of the disease upon the constitution of the tissue as of the presence of a tube. He would as soon think of declining to open the trachea of a child suffering from imperfect oxygenation of its blood as a result of narrowing of its glottis, as he would hesitate to cut down a man hanging by a rope about his neck, because it *might* be too late to restore him to life.

Dr. Hutchinson, of Brooklyn, expressed his belief that the operation of tracheotomy was not, *per se*, a dangerous one. It is true that we cannot tell in many cases of croup if death will result, but he was decidedly in favor of giving the patient the benefit of whatever good could come from the procedure.

STRICTURE OF THE MALE URETHRA AND ITS CURE.

Dr. Fessenden N. Otis, of New York, next read a paper on "Stricture of the Male Urethra and its Radical Cure." The doctor reiterated the opinion formerly expressed, that "the slightest encroachment upon the urethral canal at any point in its course was cause sufficient to prolong an existing urethral discharge, or even to establish it *de novo* without venereal contact," and also that "the associate of stricture in every case is chronic urethritis."

The opprobrium medicorum, he said, rests upon stricture because, after the patient is pronounced *cured* by his surgeon, he is obliged to continue the systematic use of dilatation by means of a bougie or sound. Dr. Otis expressed his belief in the *true* curability of stricture, and proceeded to explain the principal causes of failure in previous methods of treatment. Among the chief reasons was the fact that heretofore strictures have been dilated, or rapidly distended, or divulsed, or divided up to a purely imaginary and arbitrary standard. The true view to take of a case is, that the calibre that nature furnishes is suited to the patient's own person, and no one can guess at this matter. It is only to be known by an examination of the healthy portions of the canal, and a comparison of its diameters with the contracted part. The meatus urinarius has often been taken as this standard, but no opening of the body is so variable in its relations to the passage to which it gives entrance. As the result of numerous measurements, the doctor had found a pretty certain relation to exist between the size of the urethra and the circumference of the flaccid penis, and a number of average measurements were given: for example, a penis three inches in circumference in its flaccid state would have a canal that would admit at least a bulbous sound of 30 of the French scale.

Circum. of penis in inches........	3¼	3½	3¾	4	4¼ to 4½
Calibre of urethra (French scale)..	32	34	36	38	40

In every case, he said, the measurements were rather over than under these estimates.

An improved urethrometer was shown, by means of which the exact dimensions of the canal at any point can be determined, and an urethrotome for the complete division of strictured portions; a guard upon the blade of the latter served to protect the healthy mucous membrane, while the contracted bands were brought against the edge of the instrument. A probe-pointed bistoury for use in accessible portions of the canal was also shown.

Dr. Otis reported in this paper one hundred cases, comprising two hundred and three operations upon two hundred and sixty strictures, showing the various points of statistical interest. Among other facts the following were mentioned. Respecting the seat of the stricture:

50 were in the first ¼ of an inch of the urethra.
63 were ¼ to 1¼ of an inch from the meatus.
48 " 1¼ " 2¼ " " "
47 " 2¼ " 3¼ " " "
26 " 3¼ " 4¼ " " "
11 " 4¼ " 5¼ " " "
6 " 5¼ " 6¼ " " "
6 " 6¼ " 7¼ " " "

The following were the measurements of the urethra in one hundred cases:

Circumference of urethra in milimeters.	22,	28,	29,	30,	31,	32,	33,	34,	36.	37,	38,	40.
No. of cases,	1,	3,	1.	18,	26,	20,	3,	15,	1,	2,	6,	1.

Not noted 2.

Thirty-four cases of over one hundred strictures, treated by the method of complete division up to the normal calibre of the canal, and which were re-examined at intervals varying from three weeks to three years, showed no tendency to recontraction.

Perfectly relieved for a time, recontraction of stricture re-examined........................	8
Not re-examined..........................	40
Perfectly relieved and still under treatment..	3
Relieved of most of the symptoms, some symptoms remaining........................	3
Partial relief............................	2
Result not known..........................	5

In two hundred and three operations no death had occurred. Five cases of urethral fever had been observed. Only one of them had occurred when the anterior portion of the canal was the part operated on, and this was in the case of a malarial subject.

In conclusion, Dr. Otis insisted upon the necessity of enlarging a contracted canal up to its normal calibre, which calibre should be determined by actual measurement, and that no surgeon should be satisfied with dilating a stricture up to an arbitrary or imaginary standard, or until it was "about right."

Dr. Hutchinson, of Brooklyn, remarked that the method of treating strictures advocated by Dr. Otis, if the true one, is one of the most important advances made in surgery in many years.

Dr. Burge, of Brooklyn, wished, at this point, to remark that some years ago he had presented to this Society an instrument for the dilatation of stricture. Subsequent observation had convinced him that it was not worth the snap of his finger.

The Business Committee read by title the report of Dr. Eugene Beach, delegate to the Connecticut Medical Association, which was referred to the Committee on Publication.

PERITYPHLITIC ABSCESS.

Dr. J. W. S. Gouley, of New York, read a paper on "Perityphlitic Abscess, due to Perforation of the Appendix Vermiformis, together with Remarks on the Subject of Treatment thereof." The paper was based upon the notes of twenty-four cases, of which the following were not mentioned by either Drs. Lewis, Bull, or Buck, in their papers on this subject, viz.:

Of Dr. Kelsey's, 1,[*] Dr. Whital, 1,[†] Dr. J. C. Hutchinson, 2,[‡] Dr. H. Bonticou, 2,[§] Dr. C. A. Leale, 2,[‖] Dr. J. H. Pooley, 1,[¶] Dr. J. W. S. Gouley, 1.

Dr. Gouley's case was a man, aged thirty-seven, who had for some time been the subject of hernia, for the relief of which he wore a truss. He frequently suffered from attacks of tenderness, in consequence of which he was often obliged to remove or change his truss. He came under the doctor's care in June of 1873, for treatment during an unusually prolonged and intractable attack of this sort, when his wife reminded him that two years before he had swallowed a fragment of a tooth. He had at that time a swelling in the right illiac fossa, which, after an interval of improvement, became larger, extending over towards median line of abdomen; fever and delirium supervened, and in August it opened spontaneously. No foreign body was noticed in the discharged matter. Improvements which occurred at once resulted in cure in December. In Feb., 1874, another attack occurred. A consultation was held with Willard Parker, and after a time the tumor was opened freely. A careful examination was made, without resulting in the discovery of a foreign body. The patient recovered without the recurrence of his hernia.

As a result of the study of this, and the history of the other cases reported, Dr. Gouley believed that when a spontaneous discharge of the contents of the abscess occurred, the opening should be enlarged sufficiently to permit a thorough exploration and emptying of its cavity, and that when opened artificially, it should not be done before the seventh day. In a subsequent statement, the doctor called attention to the necessity for the removal, at the same time, of the diseased appendix.

Dr. Thos. F. Rochester, of Buffalo, said that it had been his misfortune to have between fifteen and twenty cases of this sort in his practice, thirteen of which ended fatally. In these examined the foreign body was found in the majority, either in the appendix or escaped. The mass was often not a foreign body, properly speaking, but a collection of phosphates derived from the secretions of the intestine, mixed and coated with fæces. He thought it very rare that foreign or other bodies got into a healthy appendix, and thought that there were almost always previous catarrhal symptoms.

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[*] Med. Record, Dec., 1874.
[†] Med. Record, May, 1874.
[‡] Communicated.
[§] Trans. N. Y. State Med. Soc. for 1873.
[‖] Communicated.
[¶] Communicated.

Dr. Ernst Krackowizer, of New York, gave his experience in this affection, saying, among other things, that the appendix sometimes becomes fixed by inflammation, when the movements of the intestine are sufficient to produce its dilatation and consequent admission of foreign bodies.

He cited the case of a boy who had fæcal fistula into the bladder and said that the inflammation sufficient to cause the disturbance may have been during the fœtal life of the patient.

GALL-STONES.

Dr. J. V. Kendall, of Baldwinsville, presented ninety-six biliary concretions removed from the gall bladder of a patient who, during life, had no symptoms which indicated the nature of her case.

AUSCULTATION OF THE ŒSOPHAGUS.

Dr. Louis Elsberg, of New York, gave the Society a short description of the method and uses of "Auscultation of the Œsophagus," and was followed by Dr. Hutchinson, of Brooklyn, who mentioned a case of a child who had swallowed a coin, in which auscultation, by the method spoken of by Dr. Elsberg, indicated the seat of the obstruction.

Dr. Squibb asked what course would be pursued with prize-papers. If the Society reserved the right of publishing them, or allowed the writers, as in the case of other papers, to publish them at their option?

The President decided that the latter course was consistent with the by-laws.

Dr. E. M. Moore, of Rochester, exhibited to the Society the extremities of two ulnæ from cases of fracture of the wrist—one was removed at the time of the injury and was the specimen shown by him at a meeting of the Medical Society of the County of New York, in 1873. The other was removed a short time since from a patient who had about six or seven years before had the peculiar fracture, which Dr. Moore has before called attention to. Both cases showed the nature of the injury as regards the separation of the triangular ligament for the pit of the styloid process, bringing away a scale of bone and converting the process into a sharp point, which punctures the annular ligament or has the latter bent sharply over its apex.

The Society then adjourned to meet in the Assembly Chamber at eight o'clock, to listen to the annual address of the President.

Second Day.—Evening Session.

The Society met in the Assembly Chamber at eight o'clock, to listen, agreeably to custom, to the President's annual address.

Referring to the various subjects which had been considered by his predecessors, Dr. Fisher chose for his paper the history of the Society since the first steps were taken towards its organization in 1796 in Saratoga County. For the history of its early years he acknowledged his indebtedness to the account left behind him by the late Dr. John Stearns, who was one of the founders of the Society and served as its Secretary and Treasurer for eleven years, and as its President from 1818 to 1821 inclusive. At first a Society of twenty-one physicians which lasted but a year, its successor in 1805 was the nucleus about which the present organization was gathered. At the commencement the adjoining counties of Washington and Montgomery joined in the organization, and William Patric, John Stearns and Patrick Howell were appointed commissioners to procure the passage of a law of incorporation. Twenty counties united at once, and at the present day all but the four of the sixty counties of the State are represented in the Society, viz.: Alleghany, Hamilton, Putnam, and Wyoming. The first meeting was held on the first Tuesday of February, 1806, and the law of incorporation was passed soon afterwards.

The attendance at the first meeting was twelve; the fourteenth, twenty-five; on the forty-second year, fifty; at the fiftieth meeting, one hundred, and during the past eight years has averaged two hundred and fourteen. The Society has now nearly five hundred living members and delegates. Many facts of interest were mentioned in connection with the subject of "Presiding Officers."

The first series of Transactions up to 1831 was published by the Society—and has since been republished in abstract form by the State. The second series, published by the State, extends from 1850 to 1872 inclusive. They by no means did the Society the credit they should have done and proved, so far as the Legislature was concerned, "the least valuable of campaign documents." The third series, published since 1773 by the Society, he hoped would be a decided improvement on its predecessors. He has made a synopsis of the literary matter since 1807 which would serve as an index to the valuable papers which had been presented. The President urged the importance of greater attention to literary work on the part of the members, and advised those who had not already done so to devote a room to their library and study apart from their business office as calculated to favor the development of studious habits.

He also remarked the want of extensive and accessible medical libraries. The library of the State has but a few medical works; the New York Hospital Library, though most accessible, is the property of a close corporation; the Medical and Surgical Library at Washington, with its 23.000 volumes and 3,000 pamphlets, is practically inaccessible, and there is an urgent want of a library like that of the Smithsonian Institute, from which books are loaned according to the character of the borrower and the nature of the work.

The President mentioned some of the evils that retard the progress of scientific medicine, deprecated the use of the "elixirs" which are so extensively advertised, and which he characterized as "slightly medicated diffusible stimulants."

Considerable attention was given in his address to considering the tendency to over-refinement and club-divisions of medical and surgical practice, which he strongly opposed, as he did likewise the establishment of so many special journals and dispensaries. The subjects of fees and homœopathy were treated briefly, together with several others of minor importance not enumerated.

At the close of the address, the members and guests, to the number of three hundred or more, adjourned to the house of Governor Tilden, and after presentation to the Governor and his family, partook of an elegant supper.

Third Day.—Morning Session.

The Society being called to order at half-past nine o'clock, the meeting was opened with prayer by the Rev. Dr. Bridgman.

The President announced that the committee to wait on the Legislature in reference to the subject of change of time of meeting would be Dr. Quackenbush.

Dr. Squibb understood that the Society had an organic right to change its time of meeting without reference to the Legislature.

The President said the Society had to give notice of its intention.

The Committee on Arrangements and Receptions reported a list of delegates and invited guests present.

The Committee on Ethics, through Dr. T. Hun, reported that they had entertained the complaint of J. C. C. Dove, of Dutchess County, and for want of other than *ex parte* evidence, declined to act. It appeared to them that the County Society in question had not been duly notified.

Dr. E. H. Parker, of Poughkeepsie, said that he was aware that the County Society *had* been duly notified in the manner required, and urged that some action should be taken at the earliest possible moment, since, until facts to the contrary were known, the petitioner might be the aggrieved person.

Dr. Eliot moved that the report be referred back to the committee with power.

Dr. Parker was quite willing that this course should be pursued, but objected to the " with power." The case, he thought, was an important one, and the decision might establish a precedent; therefore, he thought the decision of the question should rest with the Society. Dr. Eliot accepted Dr. Parker's amendment and the motion was carried.

Dr. Kendal, Chairman of Committee to invite the Health Committee of the Legislature, reported that they had discharged that duty, and on motion their report was accepted.

The Committee appointed to audit the Treasurer's account reported that it had been found correct as per vouchers presented.

On motion of Dr. Eliot, the report of the committee was accepted.

Dr. Squibb hoped that some light might be had on the item of the account which mentioned the payment of three hundred dollars for several thousand copies of the *Sanitarian*. He was not prepared to say that it was unauthorized, but thought that it was an irregularity which needed an explanation for the information of the Society, since the report of the Committee on Hygiene had not appeared in the annual Transactions.

The Secretary, Dr. Bailey, said that the gentlemen would remember that the report of the Committee on Hygiene was the feature of the evening meeting of the Society last year, and the need for its early publication led to the motion of Dr. Gray, on the morning of the last day, that the Secretary be empowered to cause its separate publication and distribution to the members of the profession in the State. Dr. Bell's offer to furnish 3,000 copies of the *Sanitarian* containing the report for the amount named, and undertake as well to send it to all the members of the county societies throughout the State seemed the most economical and expeditious way of accomplishing this, and it was in this way that the item of the account was to be explained. Because of its circulation in this manner the report was omitted for the volume of Transactions.

Dr. Bell, the editor of the journal in question, explained that he had fulfilled the contract as he had agreed to do, although at a pecuniary loss to himself, since the report nearly filled the journal to the exclusion of other matter and the price he received for it did not equal, by one-half the cost of publication. On motion of Dr. Elliot the treasurer's report was accepted.

ELECTION OF OFFICERS.

The Committee on Nominations then reported the list of officers, delegates, etc., for the ensuing year of which the following are the most important items:

OFFICERS FOR THE ENSUING YEAR.

For President.—Dr. Thomas F. Rochester, of Buffalo, *Vice-President*, Dr. Ellsworth Eliot, of New York, *Secretary*. Dr. E. R. Hun, of Albany, *Treasurer*, Dr. Charles F. Porter, of Albany.

Censors.—The list of censors remains about the same as last year, with the exception that J. C. Hutchison, of Brookline is appointed in place of E. R. Squibb, in the Southern district, and C. C. Wyckoff, of Buffalo, in place of L. B. Coates of Batavia.

Committee on Correspondence.—The same as last year.

Committee on Statistics.—The same as last year.

Committee on Prize Essays.—Henry W. Dean, of Rochester, Thomas F. Miner, of Buffalo, Wm. S. Ely, of Rochester.

Committee on Publication.—A. E. M. Purdy, and Ellsworth Eliot, of New York, and E. R. Hun, of Albany.

Committee on By-Laws.—The same as last year.

Permanent Members Elected.—First District: A. Jacobi, and J. W. S. Gouley, of New York. Second District: J. Hasbourck, Port Ewen; J. H. Pooley, Jr., Yonkers. Third district: Joseph Lewi, Albany; M. H. Barton, Troy. Fourth district: U. L. Snow, Canajoharie; Asael Perry, South Easton. Fifth district: Chas. D. Budd, Turin; Geo. W. Cook, Otego. Sixth district: John K. Stanchfield, Elmira; C. B. Richards, Binghamton. Seventh district: Judson C. Nelson, Truxton; Eben O. Smith, Yates Co. Eighth district: Thos. D. Strong, Westfield; Wm. S. Ely, Rochester.

Honorary Members Elected.—S. W. Oakley, Elizabeth, N. J.; J. M. Da Costa, Philadelphia, Pa.; Ezra M. Hunt, Metuchin, N. J.; Francesco Dichiara, Palermo, Italy; Elisha H. Gregory, St. Louis, Mo.

Honorary Degree of Doctor of Medicine.—None.

Eligible for Permanent Membership—First district, none. Second district: Desault Guernsey, Poughkeepsie. Third district: D. W. O'Leary, Albany; Henry March, Albany, T. S. Green, Coxackie. Fourth district: Safford E. Hale, Essex; J. M. Rhodes, Herkimer Co. Fifth district: none. Sixth district: F. Wylie, Bath; D. W. Burge, Hector. Seventh district: W. W. Porter, Syracuse. Eighth district: None.

DELEGATES.

Delegates to the American Medical Association.—Drs. J. P. Gray, G. J. Fisher, H. W. Deane, W. C. Wey, J. Foster Jenkins, F. Hyde, C. R. Agnew, A. N. Bell, J. A. Minor, C. A. Robertson, J. V. P. Quackenbush, N. C. Husted, J. W. S. Gouley, Geo. F. Shrady, F. D. Benedict, H. D. Didima, J. C. Hutchinson, E. R. Squibb, D. B. St. J. Roosa, J. M. Sims, H. H. Chubbuck, R. B. Bontecou, G. H. Hubbard, J. Hunt, L. Elsberg, T. F. Rochester, E. M. Moore, J. G. Orton, W. W. Porter, J. P. White, W. H. Bailey, C. C. Wyckoff, L. Moore, T. A. Emmet, J. S. Mosher, C. Green, N. Niverson, G. S. Winston, J. J. Adams, J. B. Graves *Pennsylvania State Medical Society.*—Drs. A. A. Crosby, S. Van Etten. *Massachusetts State Medical Society.*—Drs. Ed. H. Parker, J. H. Emerson, E. R. Peaslee, J. M. Sims, E. Balch, C. A. Leale. *Connecticut State Medical Society.*—Drs. E. S Bradley, A. E. M. Purdy, N. C. Husted *New Jersey State Medical Society.*—Drs. R. Newman, A. E. M. Purdy, S. Van Etten, G. Buck, A. Jacobi, J. W. Nelson, F. P. Foster, Joseph Bates ———, ———. *New Hampshire State Medical Society.*—Drs. M. R. Holbrook, W. Govan. *Vermont State Medical Society.*—Drs. H. T. Hanks, J. G. Green. *Canada Medical Association.*—Dr. A. O. Wolf. *Wisconsin State Medical Society.*—L. Burton.

Censor of Syracuse Univ., Medical Department, same as last year.

The committee also presented the following Preamble and Resolution, which were unanimously adopted:

Whereas, After a continuous period of service as Secretary of this Society for ten years, Dr. W. H. Bailey feels constrained to decline the further acceptance of the office, it is, therefore,

Resolved, That the acknowledgments of the Medical Society of the State of New York are hereby conveyed to Doctor William H. Bailey for the self-sacrificing and eminently successful manner in which, by his courtesy, skill and ability he has discharged the arduous duties incident to his position; and that this Resolution be published in the proceedings of this Society.

Resolved, For the purpose of complying with a by-law of the American Medical Association, that the delegate from this Society whose name heads the list, be regarded as the member of the Nominating Committee from the State of New York in that body; and in the event of his absence, that the delegate in attendance whose name is next in order shall be chosen to that position.

On motion of Dr. Eliot, the Report was accepted, and the Resolutions adopted.

Following the election, the Committee on Prize Essays declared the following subjects to be competed for during the coming year:

For the Merrit Cash Prize—"Transfusion, Historically, Experimentally, and Critically Considered."

For the Brinsmade Prize—the subject optional with the candidate.

The President announced that the Committee on Hygiene would remain the same as last year. He also mentioned the death, in August last, of Samuel Shumway, M.D., a member of the Society.

On motion of Dr. Eliot the Society directed the retiring President to fill all vacancies that might occur in the list of delegates.

Dr. Squibb offered a series of resolutions relative to the publication of the Transactions which, after some discussion, were adopted as follows:

Resolved, That the edition of the Transactions for 1875 shall be 1,800 copies.

Resolved, That the Publishing Committee shall hold the copyright in the name of the Society, and shall invite the competition of at least two respectable publishing houses for its publication, and award the work to that house which will perform the work in the most economical way.

Resolved, That some slight improvement in binding the volume be made, so that the publication of the Society may be distinguished upon the shelves from the publications of the Legislature.

Resolved, That the Publication Committee communicate at once with the members of this Society and its constituent county societies, so far as they can be reached, to ascertain the number of copies required, notifying them of the cost of the Transactions per copy, and requiring the price to be sent to the Committee in advance, that the committee may meet its engagements with the publishers.

Resolved, That a copy of the Transactions for the last year and this be sent to each delegate from other States and societies who may have been present at the last meeting and at this, without charge.

Resolved, That a copy of the Transactions be sent to each medical library in the State, the library of the Surgeon-General's office at Washington, D. C., and to any other incorporated libraries known to have medical departments.

Resolved, That papers which are not placed by their authors complete in the hands of the Publication Committee within thirty days after the close of the session, be excluded from the volume.

Resolved, That the volume of Transactions be supplied by the Publication Committee to the members of this Society and its constituent county societies at a price not less than ten *per cent.*, nor more than fifteen *per cent.* greater than their total cost, and be sold at public sale at their option at a price not less than twenty nor greater than twenty-five per cent. upon their total cost.

Resolved, That the Publishing Committee be directed to present to the next annual meeting a plan for the future publication of the Transactions.

Resolved, That each member who may have paid the higher price of three dollars for the volumes of last year may, at his option, have another volume of the Transactions of last year without further payment.

HOT WATER IN SURGERY.

Dr. Frank H. Hamilton, of New York, gave his experience in the use of hot water by immersion in the treatment of amputations and other surgical affections in the Reception Hospitals and St. Francis Hospital, in New York, during the past three years. (See former No. of the Medical Record.)

Dr. Squibb said that it was certainly gratifying to his complacency to have the views expressed many years ago in an article contributed to the *Amer. Journal of Med. Sciences* receive such endorsement. He offered also a suggestion which came first from French surgeons, that a small quantity of aromatic wine should be added to the water, not only because of its odorous nature but because its ingredients possessed disinfectant properties.

Dr. Krackowizer, of New York, had had some experience in the German Hospital in the employment of this measure and considered the use of hot water mostly restricted to the primary stage of injuries. After cicatrization had commenced, he thought the œdema produced by the heat, moisture, and dependent posture combined tended to interfere with recovery. Dr. Hamilton had spoken of the restriction of the application to the parts below the upper arm and thigh, but he knew no reason why immersion of the whole body might not overcome the difficulty when other parts were the seat of trouble. Hebra had done this in the case of extensive burns and the patients had been kept under water for weeks together.

Dr. Quackenbush reported that the committee appointed to wait on the Legislature had presented the subject of change of time of meeting to Hon. Mr. Husted, who had promised to see that it received early attention. The Business Committee read the following papers by title, and they were referred to the Committee on Publications.

"Case of Puerperal Convulsions, Apoplexy," by Dr. Cartwright.

"Case of Fracture of Humerus."

"Case of Gall Stones."

"Removal of Breast by Knife, and afterwards by Elastic Ligature," by Dr. Abbot.

FRACTURE AND DISLOCATION OF THE ACCROMIAL EXTREMITY OF THE CLAVICLE.

Dr. Sherman, of Ogdensburg, narrated cases of "Fracture and Dislocation of Accromial Extremity of Clavicle."

Dr. E. M. Moore declared his interest in these cases which are truly rare. He had no knowledge of the results of this method in dislocation until two years ago. Last summer he received a letter from Dr. Price, of Ill., reporting the successful issue. Two months later he had another case which resulted so favorably that it was difficult to tell which was the injured shoulder. These four cases were the only ones of which he had heard.

Dr. Hamilton thought the gentlemen had not made a distinction between two varieties of this injury, one complete, where the outer extremity of the clavicle over-rides the accromion, the other, where the laxation was incomplete. Of the two, the former is, of course, the most serious, and the perfect cure questionable.

Dr. Rochester had treated successfully a case of complete dislocation of sternal end, when the attention was attracted by the interference with breathing caused by pressure of the extremity of the clavicle against the trachea.

Dr. Sherman said that in both the cases reported by him the dislocation was complete.

Dr. Squier moved that Professors Hamilton and Dalton be requested to furnish the substance of their remarks to the Committee for publication in the Transactions. Carried.

MISCELLANEOUS.

The Committee on Credentials, through Dr. Wey, made the following report:

Two hundred and fifty-nine names were registered, ninety-seven as permanent members, ninety-four as delegates, and sixty as invited guests, including

3 delegates from Vermont Medical Society.
2 " " Maine "
1 " " Massachusetts "
1 " " Connecticut "
1 " " Wisconsin " and
2 medical members of the Legislature.

Dr. Prout, of Brooklyn, hoped that the change in the time of meeting would enable the Society to occupy better room for its future meetings.

There being no further business the minutes of the morning's session were read and approved, and the Society adjourned *sine die*.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Reports of Practice and Peculiarities in Treatment.

POTT'S DISEASE.—REMARKS OF PROF. LEWIS A. SAYRE.

The child had been sick about one year, and had been medicated for worms. This is very common when the disease is in the dorsal region, and arises from the fact that many of the symptoms under these circumstances are referred to the organs within the abdomen. When the disease is higher up, the patient may cough or have some symptoms which the doctor will say are due to some pulmonary disturbance.

These children will, instinctively as it were, hold their spinal column in such a manner as to prevent any motion; hence they will invariably squat down when they wish to pick up anything lying upon the floor, holding their backs as rigid as a stick. When they walk, the head is thrown back, chin forward, and they are constantly reaching out for something to catch hold of for the purpose of keeping the weight of the head and shoulders from the diseased spine; and when there is nothing which they can get hold of to give them support, they will catch hold of their thighs, and in that manner transmit the weight of the head and shoulders through the arms to the thighs, and thus to the ground. The proper method of examining these cases is, to place the child over the lap, face down, with the arms over one leg and the thighs dropped over the other leg; then gradually "open" the child, as it were, by slowly separating its legs, as you see me doing now. In this manner you can extend the vertebral column and remove the muscular contraction which is keeping the diseased joints as still as possible, thereby relieving the patient of all pain. By removing this extension, or pressing on the ribs, upon the sides of the body, you will produce instant pain. This is a point not mentioned in the books. By pressing upon the top of the head and buttocks at the same time, pain is produced.

Pressing upon the spinous processes when the child is extended in the manner indicated, will in many instances produce no pain.

The fact that pressure can be made over the spinous processes without causing pain, is regarded by many as evidence that no disease of the bones is present. But it is the anterior part of the body of the vertebræ which is affected, and when these begin to give way, the spinous processes begin to stick out, and by pressing upon them, we remove the pressure from the diseased surfaces, and the suffering of the patient is very much relieved.

The common teaching with regard to this disease is, that it is of constitutional origin; but that is not true in a very great majority of cases, for almost all of these cases can be traced to direct injury. Of this subject we shall speak fully when we reach it in the regular course..

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The late Prof. George T. Elliott was a brilliant lecturer, and always commanded a full audience. His mastery of words was remarkable, and this, added to his natural grace, his pleasant voice and emphatic manner, made him a general favorite with the students. We recollect the first lecture he ever gave to a medical audience, and it being the first of the kind that we ever attended, the circumstance connected with it made a vivid impression upon us. It was in the theatre of anatomy of the College of Physicians and Surgeons, when that institution was located in Crosby street. Prof. Gilman had invited him to give a preliminary course in operative midwifery, and as an introduction to that course Dr. E. occupied the first lecture in the description of the pelvis. For that purpose he had a female skeleton, which was suspended in the usual manner. At first he seemed somewhat embarrassed, hesitated not unfrequently for the choice of a word, and was not at all at his ease. In the midst of his description of the two straits of the pelvis, and while indicating their respective directions with the fingers of his two hands, he was startled by applause occasioned by the entrance of Prof. Gilman. This was the signal for a complete stop on the part of the lecturer. He blushed, bowed, ceased speaking for a moment, and in seeming despair invited Prof. Gilman to continue the lecture. Prof. Gilman looked in his peculiar manner over his spectacles, smiled at the students, then at the lecturer, and seemed to enjoy the consternation which he caused. All the while Dr. Elliott continued to blush, and evidently felt miserable. Prof. Gilman bowed, smiled, sat down, wiped his specks, looked up and said, "I only came in to hear you, sir. Pray, don't mind me." Dr. E. straightened himself more erect if possible than ever. Closed his lips for a moment, gave an appealing look to the students, and then was master of the situation. Dr. E. completed the rest of his hour with a grace and ease that astonished all present. Since that time he became one of the most accomplished lecturers on his branch in this city.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE STATE SOCIETY MEETING.

At the last meeting of the Medical Society of the State of New York one or two important changes were made which, we doubt not, will insure the future prosperity of the organization. One of these changes had reference to the time of meeting. As we had already predicted, the Society was ready for the question, and the recommendation to change the time of meeting from February to June was carried without any difficulty. All that now remains is to secure the sanction of the Legislature, which, as it is a mere matter of form, can easily be done.

There were many good reasons why the time should have been changed to September, but the majority of the country members being in favor of June, their wishes were consulted, and the committee appointed for the purpose acted accordingly. The main objection to June was the meeting of the American Medical Association, and this objection still holds good notwithstanding the meeting of the State Society is fixed later in the month. It, however, seemed desirable that some definite time should be agreed upon, and that as far as possible a purposeless discussion should be avoided. So far, so good. But the Society has possibly made a mistake in fixing the time so explicitly. We think it would have been much better to have simply asked the Legislature to grant the authority for a change, and leave the selection of the precise time to ourselves. But it is well enough as it is; in fact any time was preferable to the month of February, the most inclement season of the year, and the one in which no comfortable quarters could be obtained in the hotels.

The question of change of place of meeting, although not acted upon, was seriously entertained by the majority of the country members. We doubt not that the time will soon come when this question will so force itself upon the Association that there will be no dodging a direct vote. There are some reasons why Albany should not continue to be the permanent home of the Society, why those members who reside there should not occasionally be called upon to travel a hundred miles or two to a meeting. Why should their attendance at a meeting at home be entitled to the same consideration as that of a member who is compelled to take a long journey? In the matter of eligibility to permanent membership this is a great item.

A delegate who is an Albanian can very easily serve his time, while one in a distant part of the State, may, with the very best intentions on his part, find it impossible. It is not to be wondered at that the Albanians are opposed to the change. The Society has gained nothing thus far by a home in Albany. After an existence of sixty-nine years, meeting annually in that city, it has not even yet been able to have a regular meeting-hall. As for a library, it has none, and the only sign of a home in Albany other than in any other place is the large number of offices that are held by Albanians. But we are preparing to meet the main question by the transfer of some of these offices to other localities, the first move in this direction being the change of base of the Committee of Publication. As we have remarked before we are not in favor of any particular place of meeting, but merely wish to say that Albany has now no more of a claim for such a distinction than New York, Poughkeepsie, Utica, Buffalo, or Elmira. We do not now see any objection to meeting in a different part of the State each year. There is not so much of the ponderous machinery which we have accumulated in Albany to impede our movements, while there can be nothing particularly lost to the Society, save Albany influences.

The scientific character of the meeting was good. The majority of the papers came from this city, and were, for the most part, furnished by specialists. The eye subjects were in the ascendancy, although the uterus was by no means neglected, and the throat, brain, urethra, and vermiform process, each received respectful consideration. It is pleasant to consider how much of mutual benefit there is to the speaker and listener. The former has the very laudable object in view of instructing the general practitioner in high art, while the latter has the double advantage of being taught, and knowing whom to send for in consultation. Notwithstanding the great value of these papers, it was a subject for regret that some of the topics more directly interesting to the general practitioner were not presented.

The matter of vivisection was very properly introduced by Prof. Dalton, and appropriate resolutions, expressive of the sentiments of the Society thereon, were passed and ordered transmitted to the Legislature. We may now consider the matter settled, so far as any fears of adverse legislation is concerned. Although it was stated that the President of the Society for the Prevention of Cruelty to Animals had no intention of altering the law, it was best to have the State Society declare itself, as it did.

The old bugbear of permanent membership again came up for temporary consideration, and was finally referred to a Committee to report at the next meeting. There is no doubt that the work of this committee will be well performed. Two of the gentlemen on it have given a great deal of attention to the subject, and we have much to expect of them when the results of their labors during the coming year will be given.

THE MARINE HOSPITAL SERVICE.

THE bill for promoting the efficiency of the Marine Hospital Service, which we published in full in a late number of THE RECORD, has, we are pleased to see, safely passed the ordeal of the committee-room, and been favorably reported to the Senate for action.

We feel that we cannot too strongly express the sentiments of the profession in favor of this measure. This important branch of the service has been too long the football of politicians; and now, that such an advance as we have seen in the past four years has been made, under the able supervision of the present chief of the service, Dr. John M. Woodworth, towards placing it upon a secure professional foundation, we are each and all of us interested in securing beyond the possibility of relapse the advantage that has been gained.

We as physicians have a duty to perform in this matter that is peculiarly urgent, on account of the tardy recognition which the efforts of this handful of men had received from the profession at large. For three years they have been asking the assistance of their professional brethren in the great work they had in hand, but we fear our organized bodies have given them rather more of the cold shoulder than of active sympathy. Recently we have discovered a change in this respect, and now, with the success of their efforts, we hope all jealousy and animosity will disappear, and that all will work harmoniously towards the great end in view—professional advancement.

We notice one change made in the bill by the committee that cannot but be detrimental to all interests, we refer to the reduction of the salary of the Supervising Surgeon from forty-five to thirty-five hundred dollars.

Economy being the order of the day, it is natural that the law-makers should scan closely every outlet; but we submit that it is the part of true economy to pay well for tried ability and integrity, and in this case the record of the past four years speaks clear and loud. We beg our friends in Congress, when the measure comes up for final action, to restore the salary of the Supervising Surgeon to at least four thousand five hundred dollars.

RECOGNIZED MEDICAL COLLEGES.

WE have received a letter from our friend Prof. E. S. Dunster, of the University of Michigan, calling attention to the following statement made in the last number of THE RECORD, in regard to the number of recognized Medical Colleges in this country: "The number of Medical Colleges so recognized by the American Medical Association can be seen by a reference to our advertising columns." We should have said "*A* number of Medical Colleges," etc. We make this correction with pleasure, as we do not desire to be understood as implying that a college not mentioned in the list referred to is not recognized by the American Medical Association.

Progress of Medical Science.

THE RELATIONS IN TEMPERATURE BETWEEN THE MOTHER AND FŒTUS.—Dr. Fehling has made a series of observations with the object of testing Cohnstein's suggestion of determining by the thermometer the life or death of the fœtus in utero. This was based on Bærensprung's observations, which showed that the fœtus is itself capable of generating heat and communicating it to the uterus, thus raising the temperature of that organ above that of the vagina. Consequently, when the fœtus dies the temperature of the uterus must sink. His observations seem to confirm Cohnstein's views, so that he considers that an equal temperature in the uterus and vagina may be regarded as quite sure proof of the death of the fœtus. He then discusses the explanation offered by Pfannkuch of the chill so often observed in women who have just been delivered, which is the following, viz., that the fœtus being a source of heat to the mother, the latter experiences a chill when it is removed at birth. Now it often amounts to only a slight shivering, and at most does not occur in more than from 30 to 40 per cent. of confinements. Thus Pfannkuch's explanation would imply a lowering of temperature in the interior parts of the body, the fact being that in the febrile child, as distinguished from one which is purely nervous, there is a rise and commonly a rapid rise in the temperature of the internal organs over that of the periphery. Among the author's observations it happened twice that there was a chill after the birth of a putrid fœtus; and this was in neither case due to septic influences, as the woman recovered without fever. He agrees rather with Schroeder's explanation of the chill in question, viz., that it is due to a difference between the temperature of the skin and that of the interior of the body. The internal temperature rises in consequence of the continued active contraction of the womb, which is now empty and in contracting meets with no resistance. During the period of expulsion, on the contrary, owing to the associated voluntary efforts involved, the lungs and skin are in great activity, so that the surface is warm and moist. In the repose which succeeds the act of birth the loss of surface temperature is considerable, and a chilly feeling is quite natural; and its intensity will depend largely on the sensitiveness of the woman and the state of her skin.—*Archiv. f. Gynæk.*, *Schmidt's Jahrb.* 10, 1873.

THE DIFFERENTIAL DIAGNOSIS BETWEEN THE RED BLOOD CORPUSCLES OF MAN AND CERTAIN OF THE LOWER ANIMALS.—In a recent paper, an abstract of which was given in a previous number of this journal, Dr. Richardson of Philadelphia affirmed that it is possible to distinguish the blood of man from that of the pig, ox, red deer, cat, horse, sheep and goat, by measurement of the red blood-corpuscles, even in dried stains upon clothing, wood, etc. That this proposition implied nothing more than a differential diagnosis may be seen from the mode in which it was stated, as well as from the writer's assertion, that in the majority of cases the object is not to determine "whether a particular specimen is human, as distinguished from all other kinds of blood, but to discriminate simply between the corpuscles of a man and an ox, a man and a horse, or a man and a sheep, and so establish or disprove the defendant's story, as to how his clothing became stained with blood." Still, he does not state whether there are not certain common animals whose blood cannot be thus distinguished from human blood, and it would be quite possible for one imperfectly acquainted with the facts to infer, that in any blood stain it may be determined by measuring the corpuscles whether the blood is human or not. The danger of this false inference being drawn from Dr. Richardson's paper has called forth an article from Dr. Woodward, in the last January number of the *American Journal of the Medical Sciences*.

Dr. Woodward makes no attempt to criticize the correctness of any of the assertions made by Dr. Richardson, but deprecates their being taken in too wide a sense. As a check upon too sanguine conclusions, Dr. Woodward's paper will doubtless have a salutary effect, and the results of original research which it exhibits give it very considerable value. The article is mainly concerned with establishing the fact that the blood-corpuscles of the dog approach so nearly in size to those of man as, in this instance, to entirely preclude the possibility of a differential diagnosis based upon measurements of the globules. It is shown that the observations of Gulliver and Welcker, which might be supposed to point to a certain, slight, though constant difference between the blood-globules of man and the dog really do not bear out this supposition when the methods employed by these authorities are carefully considered. So far as Woodward's measurements are concerned they appear to have been made in the most careful manner, aiming at an accuracy far exceeding that attained by Gulliver, and the method and instrument which he employed are described minutely. He took in all thirteen specimens of human blood from different persons and examined them both in a dry and moist state, the diameters of about fifty corpuscles being measured at each examination. In each of these measurements the great majority of the corpuscles ranged from .00024 to .00034 of an inch. The size most frequently measured was .00030 of an inch. Nine specimens of dogs' blood (different animals being used) were examined in the same way, and yielded averages which were about identical with the above. In three of the specimens of human blood, it is stated that the means were a trifle greater than any of those of dogs' blood, and two of the latter a trifle smaller than any of those of human blood. All the other means for the dog were within the range of the values found for human blood, and the majority of them were each identical, even to the last decimal place, with some one of those found for man. The greatest number ranged from .00024 to .00034 of an inch in diameter as in the former case, and the most common diameter was .00030 of an inch.

Woodward has made no other comparisons, but he refers to the researches of others, which indicate a like similarity between the blood-corpuscles of several other animals and those of man. Special mention is made of the quadrumana, as well as of the rabbit and guinea pig. The blood of some other animals less common, is also alluded to in this connection.

He closes the article with the following emphatic language: "In conclusion, then, if the microscopist, summoned as a scientific expert to examine a suspected blood-stain, should succeed in soaking out the corpuscles in such a way as to enable him to recognize them to be circular discs, and to measure them, and should he there find their diameter comes within the limits possible for human blood, his duty, in the present state of our knowledge, is clear. He must, of course, in his evidence, present the facts as actually observed, but it is not justifiable for him to stop here. He has no right to conclude his testimony without making it clearly understood, by both judge and jury that blood from the dog, and several other animals would give stains possessing the same properties, and that neither by the microscope nor by any other means yet known to science, can the expert determine that a given stain is composed of human blood, and could not have been derived from any other source. This course is imperatively demanded by common honesty, without which scientific experts may become more dangerous to society than the very criminals they are called upon to convict."

PURPURINE FOR STAINING MICROSCOPIC SECTIONS.—M. Ranvier reports that he has been using this new coloring matter for the last few months, and the results he has obtained lead him to expect that it will furnish a clue to some of the obscure points in histology. Purpurine is obtained from madder, but the kind employed by him contains a slight admixture of alizarine. The fluid is made as follows: He dissolves one part of alum in two hundred of distilled water; this fluid is then heated to the boiling point in a porcelain vessel; he then adds a small quantity of purpurine triturated in a little distilled water; when a few minutes have elapsed the purpurine will be dissolved, but it is desirable to have a slight precipitate remaining which indicates that the solution is saturated—the object desired; the fluid should then be filtered while hot into a flask containing alcohol, and the amount of alcohol should be equal to one-third the amount of the hot purpurine solution. The liquid obtained in this way is of a beautiful orange-red color, and is fluorescent. It may then be preserved in a corked bottle, though, at the end of a month, there will be a slight precipitate, so that it will be better to make it fresh again.

To obtain the requisite depth of coloring, microscopic sections should be immersed in this fluid from twenty-four to forty-eight hours. The nuclei, as a rule, assumes the color most rapidly, and are most deeply tinged; the fibres of connective tissue are not colored while the smooth and striped muscular tissue is a pale-red, approaching yellow. The protoplasm of the epithelial cells is very slightly colored, while, on the other hand, the nuclei are highly colored. Purpurine does not stain any of the nervous elements, avoiding the cells, their processes and the axis cylinders. Owing to this latter characteristic, M. Ranvier believes that purpurine may be able to elucidate some of the controversial points in the minute anatomy of the nervous system. He finds that the granules of the external and internal granular layers of the retina are colored bright red, and therefore he was led to believe that they are not true nerve elements.—*Archives de Physiologie*, Nov.–Dec., 1874.

NEW FRENCH MEDICAL SCHOOL.—For some time there has been a Primary Medical School at Lyons, but a bill recently passed the Assemblée Nationale to establish a full faculty of medicine. It met with considerable opposition from the schools at Paris and Nancy.

Correspondence.

THE LYING-IN SERVICE AT CHARITY HOSPITAL.

To the Editor of the Medical Record.

Dear Sir:—I have read with great satisfaction, in your issue of last week, Dr. Watts's "Report of the Lying-in Service at Charity Hospital for the year 1874." The very favorable results furnished are exceedingly gratifying to every lover of humanity, and the gentlemen who have had charge of the service eminently deserve the congratulations of the profession, and the public at large.

I feel it therefore to be an ungrateful task on my part to respond to the charge of "error," which Dr. Watts prefers against me for affirming that Charity Hospital was closed in 1869, on account of its having been visited by a severe epidemic of puerperal fever. I find in fact that the true date should have been 1870 and not 1869. The authority for my statement is contained in the "Statistical Tables" of the Bellevue and Charity Hospitals, published by the Department of Public Charities and Corrections for the year 1870, where may be found, at the end of the Compiler's preface, the following short, but explicit paragraph. "The Obstetrical Reports of Charity Hospital were rejected, the number of cases not being sufficient to render the statistics for publication useful. *This was due to the closure of the Lying-in Wards on account of the prevalence of puerperal fever.*" On inquiry of gentlemen connected with the Charity Hospital during the year referred to, I was told that this statement was substantially correct. Nor can I learn that it was called in question at the time, when first made, and the facts were fresh in the memories of all. I have, however, been since informed that the closure was not absolute, for that while cases of confinement ceased for a time to be sent to the Charity Hospital from the distributing office in New York, a few patients were nevertheless confined there, derived in part from the syphilitic wards, and in part from the Alms-house. In the "Report of the Medical Board of Charity Hospital" for the year 1869, Dr. Watts writes as follows: "The Medical Board have endeavored, during the past year, to establish a system for keeping accurate records of the cases treated in the Hospital, the supervision of which has been entrusted to a special committee. Although the histories have not, as yet, been kept in as satisfactory a manner as we should desire, still enough has been accomplished to make us hope that hereafter the records will be complete, and the experience obtained in this Hospital may serve as a valuable contribution to medical science." If, with the improved system of keeping the records, initiated in the year 1869, it shall appear that I have been misled in my assertion relative to the prevalence of puerperal fever in 1870, it will be my pleasure as well as my duty to confess my error. Dr. Watts states that, "If the statistics of the lying-in service at Bellevue for 1874 up to the time of its close were published, they would show an enormously increased ratio both of puerperal diseases, and of death." I have long been engaged upon this very matter, and as most careful records have been kept of every case, I shall soon have an opportunity to present such a history of that disastrous period, as may serve, I hope, to form "a valuable contribution to medical science."

As so much stress is laid upon the comparative results of the lying-in statistics of the two Hospitals, I must strenuously object to conclusions drawn from the records of single years. The following figures will show how variable the results may be in the same Hospital in different years:

BELLEVUE HOSPITAL.

	No. of Births.	Deaths from Puerperal Diseases.
1860	474	19 or one in $24\frac{18}{19}$ cases.
1861	459	17 or one in $17\frac{17}{26}$ cases.
1862	393	7 or one in $56\frac{1}{7}$ cases.
1863	419	6 or one in $69\frac{5}{6}$ cases.
1864	416	13 or one in 32 cases.
1865	590	17 or one in $34\frac{2}{17}$ cases.
1866	565	30 or one in $18\frac{25}{30}$ cases.
1867	561	9 or one in $62\frac{1}{3}$ cases.
1868	594	24 or one in $24\frac{18}{24}$ cases.
1869	473	14 or one in $33\frac{11}{19}$ cases.
1870	586	31 or one in $18\frac{28}{31}$ cases.

Thus in 1862–'63–'67 the results at Bellevue were far superior to those obtained in Charity during 1874 (C. H. one to $39\frac{2}{11}$th). In the year 1869 the result at Bellevue was one death in $33\frac{11}{14}$ cases. In the same year at Charity there were one hundred cases of labor with four deaths (2 from metro-peritonitis and 2 from puerperal peritonitis) or one death in 25 cases—(*vide* "Annual Report" for 1869).

However, by way of compensation, the years 1861, 1866, and 1870, will be seen to have been so bad at Bellevue that it is difficult to indulge in boastfulness. It is interesting to note that in a continuous service of ten years, two of the most fatal years were followed immediately by others in which the exemption from puerperal disorders was extraordinary. In the ten years mentioned there were in all 5,530 births, with 187 deaths, or one death to $29\frac{117}{184}$ persons. LeFort found that out of 888,312 confinements in maternity hospitals in different parts of Europe, 30,394 died, or one death to $29\frac{1}{5}$ persons.

That out of 236 married women in Charity in the year 1874, four should have died of peritonitis, while in Bellevue out of 240 married women only two died during 1873, of the same disease, might be mentioned as a noticeable fact. In reality it proves nothing at all.

That Bellevue Hospital does not answer my ideal of a lying-in institution, I am willing to confess.

That Charity Hospital may enjoy a long immunity from puerperal disorders, I earnestly hope.

That it is not worth while for either Charity or Bellevue Hospital to exaggerate the defects of the other, is a point upon which I believe both Dr. Watts and myself can afford to agree.

Very Truly Yours,

William T. Lusk.

47 East Thirty-Fourth St., New York.

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ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 31st to Febuary 6th, 1875.

Bentley, Edwin, Asst. Surgeon.—To proceed to Camp Bidwell, California, for temporary duty at that post, and, upon its completion, to return to his station in San Francisco, California. S. O. 11, Dept. California, January 25th, 1875.

Semig, B. G., Asst. Surgeon.—Instead of complying with S. O. 124, of 1874, from these Headquarters, to report to the Commanding Officer of the Presidio of San Francisco, for such duty as he is able to perform. S. O. 10, Dept. of California, January 23d, 1875.

Medical Items and News.

Our Report for the State Society.—The time required to insure the accuracy of the report of the State Society did not permit us to publish it in the preceding number, as was our original intention.

Dr. Jacob D. Wurts, of Paltz, N. Y., is the Chairman of the Health Committee. of the Assembly. All the other members of the committee are medical men.

The Medical Law.—It is understood that an attempt will be made to repeal the present law regulating the practice of medicine in this State.

Rapid Child-Bearing.—Dr. John Parr, of Buel, reports the following case: On March 7th, 1874, I attended Mrs. D. in labor, and delivered her of a male child, which she continued to nurse up to the birth of a second child (girl), January 17th, 1875. The age of the first child at the birth of the second was ten months and ten days.

Medical Practice in 1700.—*The Chemist and Druggist* quotes, from the *History of Advertising*, the following curious advertisement of a regular London physician, found in the *Flying Post* of Jan. 6, 1700:

At the Angel and Crown, in Bassing Lane, near Bow Lane, liveth J. Peachey, a Graduate in the University of Oxford, and of many years' standing in the College of Physicians, in London: where all sick people that come to him, may have for Six pence a faithful account of their diseases, and plain directions for diet and other things they can prepare themselves. And such as have occasion for medicines may have them of him at any reasonable rates, without paying anything for advice. And he will visit any sick person in London or the liberties thereof in the day time for two shillings and Six pence, and anywhere else within the Bills of Mortality for Five shillings. And if he be called in by any person as he passes by in any of these places, he will require but one shilling for his advice.

A New Chinese Remedy for worms, syphilis, vomiting, and skin diseases, and possibly for any other kindred malady for which the patient may take it, is prepared as follows: Maggots are taken from privies and washed, then dried in the sun, fried, pulverized, and either made into pills or eaten in powder. We think it would be better for the Chinamen not to get these diseases.

A New Medical Periodical.—Geo. P. Putman's Sons have commenced the publication of a series of Clinical Lectures after the pattern of the Volkmann collection, so popular in Germany. The editor of the American series is Dr. E. C. Seguin, of this city. The first number contains a lecture on Morbus Coxarius, by Prof. L. A. Sayre. The subject is exhaustively treated, and is a valuable contribution to orthopœdic surgery. The pamphlet is elegantly printed. We see no reason why such a series of lectures should not become very popular.

A Specimen of Nomenclature.—*The Med. and Surg. Reporter* says: "Our chemical readers will doubtless be pleased to learn that a series of acids have been investigated by M. Hayduck. One is orthoamidotoluenesulphonic acid; and another, diazorthoamidoparatoluenesulphonic acid. A knowledge of these is not indispensable to the practice of medicine. The action of tin and hydrochloric acid on nitrobromacetanilide gives rise to the hydrochloride of ethenylbromophenylenediamine."

The British Medical Association is to hold its next meeting at Edinburgh.

Physicians in Montreal.—There are one hundred and eighty-two doctors of medicine in the city of Montreal.

Chicago Medical Register.—The medical profession of Chicago has founded a Medico-Historical Society, having for its principal object the publication of a Medical Register for that city. Dr R. C. Hamill was elected president, and Dr. A. R. Jackson, editor.

An Affecting Dissecting Room Scene.—The janitor of an Indianapolis medical college was deeply affected on recognizing his mother-in-law on the dissecting table. His grief was the more poignant from the fact that he had himself carried the stolen corpse up three flights of stairs.

The Wolf in Sheep's Clothing.—In an inland town in California is an individual who claims to have a secret cure for diphtheria, to the sale of which he devotes his energies. This man has lately become religious [?] At a church meeting he is reported to have made a speech as follows:—"I have made up my mind to give my property to the service of the Lord. I have several thousand dollars in money, all of which I bestow on the Church. I have some fine blooded stock, especially some Black Hawk horses, all of which I give to the Church. I have also a lot of grain and farm produce, which in like manner I bestow on the Church. There is but one thing in all my possessions which I reserve for myself, and that is my celebrated medicine for the cure of diphtheria, which I will continue to sell as heretofore, for the moderate price of two dollars a bottle."

The *Boston Med. and Surg. Jour.*, commenting on the above says: "They have a trick in Boston worth two of that; it is to treat disease at a certain home by prayer and the judicious use of medicine."

A Large Child.—Dr. J. B. Davison, of Moline, R. I. Co., Ills., writes as follows:

On the 16th of August last, I saw Mrs. D., a woman of Irish birth, the mother of three children, short, stout, and weighing 160 lbs. She had been in labor eighteen hours before I saw her. I at once applied the forceps and delivered her of a female child alive. Its weight was 16 lbs.; length, 21½ inches; circumference of thorax, 14⅜ inches; occipito-mental diameter, 7⅛ inches; occipito-frontal, 4⅞ inches; bi-parietal, 4¾ inches. It lived thirty-six hours and had just died when these notes were made, which is the reason why there are not other diameters given. The mother suffered little more than is common, and in four weeks was able to be about.

Mortality of Factory Operatives.—It is said by Geigel that the mortality of factory operatives and their children exceeds by nearly one-half that of the rest of the population.

Vivisection in England.—The enemies of vivisection are making a vigorous effort to prevent experiments on animals in laboratories and lecture-rooms, and a memorial on the subject is being numerously signed for presentation to the Society for the Prevention of Cruelty to Animals. Among the signatures are the names of Earl Russell, the Archbishops of York and Armagh, Dean Stanley, Canon Liddon, and Chief Justice Coleridge.

The scarcity of oysters has become so great in England, that the press is calling for a governmental investigation of the reasons for it, preparatory for the application of a remedy, if that be possible.

Professional Bills.—Following an editorial in the *Medical Times* on the above subject, the editor announces the receipt of several communications. One correspondent sends from Boston a schedule of fees, which it is becoming customary in that city to have printed on the backs of the bills rendered for professional services, and is as follows:—

The Boston Medical Association, composed of the regular physicians of Boston, adopted the following fee-table, July 1st, 1864:

But it is left to the judgment of each practitioner to make any deduction from the following rates which the pecuniary circumstances of the patient may require.

For each visit within the city in the daytime	$3.00.
For a visit after 9 P.M., and before 8 A.M.	5.00. to 10.00.
(In cases of consultation or other extraordinary attendance in the night, the fee for each extra attendance shall be added to that for a night visit.)	
For a visit in consultation	5.00 to 10.00.
For attendance involving travel out of town, mileage shall be charged at a rate per mile, for short distances of	1.00 to 2.00.
For advice at the physician's house, according to the importance of the case, unreasonableness of the hour, or time occupied	3.00 to 20.00.
For vaccine innoculation	5.00.
For attendance in midwifery in the daytime	20.00.
For attendance in midwifery in the night	30.00.
(Obstetric operations, when necessary shall be charged in addition to the usual fee for attendance. In obstetrical practice all subsequent visits shall be charged as in ordinary cases of attendance.)	
For minor surgical operations, such as stitching wounds, opening abscesses, etc.	5.00 to 25.00.
For major operations, according to importance	25.00 to 500.00.
(After surgical operations all subsequent visits shall be charged as in ordinary cases of attendance.)	

Venesection in Threatened Œdema of the Lung.—Dr. E. H. Hamill, of Islip, N. Y., contributes the following item of experience:

Mrs. L., aged 46 years, height 4½ feet, weight 150 lbs., on January 5th, started to walk three-fourths of a mile to catch a train to New York. Felt perfectly well at starting, with the exception of a slight cold she had contracted two days before. After walking a few rods she felt some difficulty in breathing; although she walked slowly the dyspnœa increased, she was obliged to stop, and in a few minutes became unconscious.

When seen by myself her condition was as follows: unconscious; lips, face, and hands blue; pupils dilated; urgent dyspnœa, with constant effort to cough; a thin serous sputa RUNNING from the mouth; tracheal rales abundant, and easily heard at the bedside; pulse scarcely perceptible, slow; auscultation revealed abundant moist rales all over the chest. Diagnosis: congestion, with rapid œdema of the lungs; prognosis: death imminent.

Treatment.—Ten oz. dark, almost black blood taken from the arm—the effect was surprising; the tracheal rales disappeared, and the breathing became easier, administered three qtts. croton oil. In one hour the patient was conscious, all alarming symptoms gone, the next morning pronounced well.

Mr. Ray Lankester will succeed to the chair of Comparative Anatomy and Zoölogy in University College, London.

Lying-In Charity in St. Louis.—An association has been formed in St. Louis for affording obstetrical relief to poor women at their homes. It is contemplated to establish a lying-in hospital in connection with it as soon as funds can be obtained in sufficient amount. At present there is a board of directors, a committee of thirty ladies who investigate and report cases worthy of gratuitous relief, four physicians in different parts of the city who attend at the confinements, a consulting physician, and a physician-in-chief. The latter has charge of the central office and receives applications for relief.

The Pathological Museum of the Philadelphia Hospital, according to a catalogue recently prepared by Drs. James Tyson and R. M. Bertholet, is said to contain about one hundred and fifty specimens.

Professor Ollier, who completed eighteen years of service in the Hôtel Dieu, of Lyons, on the 1st of January, went out of office in conformity with the rule which limits the term of service of visiting surgeons and physicians. As he is at present but forty-five, the enforcement of the rule results in serious loss to the institution, and deprives Professor Ollier of a field for research at just the age when his work is most valuable.

The Veterinary Society of New York, lately organized, consists only of regular graduates of accredited schools. The following are the officers elected: *President*, A. Liautard; *Vice-President*, G. L. Robertson; *Secretary*, L. P. Bell; *Treasurer*, J. D. Hopkins.

Medical Society of Kings County.—At the fifty-fourth annual meeting of this society, held January 19, the following officers were elected for the ensuing year: *President*, A. J. C. Skene, M.D.; *Vice-President*, A Hutchins, M.D.; *Secretary*, Richard M. Wyckoff, M.D.; *Assistant Secretary*, J. D. Rushmore, M.D.; *Treasurer*, G. G. Hopkins, M.D.; *Librarian*, W. W. Ruse. M.D.; Orator, E. S. Bunker, M.D.: Alternate, J. H. Raymond, M.D.; *Censors*, Drs. J. H. H. Burge, G. W. Baker, J. S. Prout, B. A. Segur, R. M. Buel.

The Medical Department of Life Insurance will appear in our next issue.

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Weekly Bulletin of Meetings of Societies.

Monday, Feb. 15.—Obstetrical Society. Academy of Medicine. New York Society of Neurology and Electrology. "The Connection between certain Lesions of the Optic Nerve and some Affections of the Spinal Cord, with special Reference to Pott's Disease," by Charles S. Bull, M.D.; "The Facial Expression of Certain Abnormal Mental States," by A. McL. Hamilton, M.D. Medico-Chirurg. Society. Pathological Society of Brooklyn.

Tuesday, Feb. 16.—New York Obstetrical Society. New York Dermatological Society. Northwestern Medical and Surgical Society. Medical Society of the County of Kings. Newark Medical Association.

Thursday, Feb. 18.—New York Medico-Legal Society. Brooklyn Pathological Society. Jersey City Pathological Society.

Friday, Feb. 19.—Medical Library and Journal Association, "Unique Cases, Medical and Surgical." Dr. E. Bradley.

Saturday, Feb. 20.—New York Medical Union.

Original Communications.

THE RELATION OF ELECTRO-THERAPEUTICS TO ELECTRO-PHYSIOLOGY.

By A. D. ROCKWELL, M.D.,

ELECTRO-THERAPEUTIST TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

(*Read before the N. Y. Society of Neurology and Electrology.*)

In the winter of 1865, my attention was, in this way, called to the therapeutics of electricity. While attending at the bed-side of a patient, I met an old gentleman of whom I had frequently heard, and whose name had for years been familiar to very many of the profession in this city. Without possessing the slightest knowledge of anatomy or physiology, or the principles and practice of medicine, this person had, for thirty-five years, followed the so-called business of an electrician, and had treated an enormous multitude of people. I was amused by many of his absurdities of statement, but was thoroughly impressed by his unswerving integrity and vast experience, and I naturally desired to know more of this man's method and processes in a field so little cultivated by the profession at that date.

On many occasions subsequently I carefully watched his methods of procedure, and saw him successful in desperate forms of chorea, neuralgia, and in many other forms of chronic nervous disease. The first case that in this way fell under my observation was a most severe and persistent form of apparent nephralgia. For over five months the patient—a young man of about thirty-five—had every day suffered paroxysmal attacks of pain of the most agonizing character. He had unsuccessfully sought relief in every direction. Seven applications given by this old man secured to the patient complete and permanent relief. A second case that impressed me strongly, occurred in the person of a little girl, about ten years of age, suffering from a severe form of chorea of eight months standing. She had taken medicine freely and judiciously enough so far as I could judge. Among other things, I found on examining one of her old prescription bottles that was brought for inspection, that Fowler's solution had been taken in considerable quantity. The patient was treated in the usual stereotyped manner of this operator, and within a month, and with less than a dozen applications her recovery was assured.

Here are but two out of many unwritten cases that in this way were forced upon my attention, and induced me at that time to study more closely the clinical side of electro therapeutics. Now this man knew nothing of electro-physiology, or kindred departments, and while he had a superficial idea of the sensible effects of the constant current, he had never used it, but had confined himself to the simple faradic current.

In short, he existed as a most remarkable example, so far as concerns scientific electro-therapeutics of profound ignorance and immense experience, associated with perfect honesty of intention. He never enunciated an idea; neither had he any conception of the principle on which he worked and through which he wrought cures. He was, however, so thoroughly the master of the method that he invariably used, that the truth of the saying, "that it is not so much electricity that cures as the manner of using it," never seemed so clear as when comparing his effective manipulations with the awkward slipshod movements that are only too frequently the results of careless attempts at imitation.

This method, which under the name of *General Faradization*, is now quite familiar to the profession, I first described in the N. Y. MEDICAL RECORD, 1866, and published cases illustrative of its powerful constitutional tonic effects. Subsequently, before the New York County Medical Society, I practically demonstrated its modus operandi, and thus was introduced to the profession a method of operation which had, for nearly two score years, been used by outsiders with brilliant success, and which, notwithstanding our increasing knowledge and facilities, and our refined methods of application, is still, I might almost say, the corner-stone of electro-therapeutics.

It would be exceedingly ungracious, not to say absurd, for me or for any one to underrate the importance of a scientific study of electro-therapeutics, or to speak of electro-physiology as of little account in its relations to the former. I fully appreciate the immense aid that the important discoveries in electro-physiology have thus far afforded to the electro-therapeutist, but I do most decidedly object to that narrowness of view which refuses to accept a clinical fact, because it does not seem perfectly adjusted in its relations to known physiological laws.

If electro-therapeutics is in advance of electro-physiology, as it would certainly appear, we yet know that there are laws in electro-physiology yet to be discovered; that in all departments of science, facts are observed long before a solution is found for them, and that here as elsewhere, we should no more hesitate to accept well-authenticated therapeutical results, because an explanation is not readily found in physiology, than we should hesitate to accept any truth of science in general, because its satisfactory explanation is not immediately at hand.

In order to estimate the value of electro-physiology as a guide to the study of electro-therapeutics, and to form some conception of just how far it should tyrannize over and hold in check our clinical experiments, and the conclusions to be drawn from them, it is well on the one hand to examine in a general way some of the most important known principles of electro-physiology, and on the other to briefly consider the main methods of application.

More than a century has elapsed since the first experimental attempts to determine the degree of excitability of the cerebral hemispheres to the electric stimulous, and although Haller and Zinn had in 1756 referred to convulsive movements that followed irritation of the medullary substance of the brain, the universal testimony of all experimenters, up to 1870, was that the brain could not be excited by our ordinary methods of stimulation.

Very recently Fritsch and Hitzig, using the constant current, followed by Ferrier using the faradic, claimed to have discovered localized centres of movement in the brain—thus nearly unearthing as it were the idea substantially put forth by Haller during the previous century. This theory has been widely discussed, and has raised high expectations in regard to a modification of the old opinions concerning the localization of the cerebral faculties. Carville, Duret, and Dupuy, however, tell us that the above theory is unworthy of acceptance, since their more careful experiments clearly teach that it is impossible to "localize this or that convolution as being the nutritive or functional centre of this or that nerve;" and at a meeting of this Society, not long since, Dupuy quite clearly demonstrated by the galvanoscopic frog and by the division of nerve fibre that the faradic current at least, when applied to the brain substance, is diffused from the cortical portion to those parts known to be excitable.

Now, in whatever light we view these investigations which have so engaged the attention of electro-physiologists; whether further experiment shall unmistakably demonstrate a centre of motion in the brain, or thoroughly disprove it, the practical gain to electro-therapeutics amounts to little.

It will still remain impossible by any external application to exclusively affect any special centres of movement or sensation.

Physiological experiment has simply taught us—and clinical experience has confirmed the teaching—that very mild currents of galvanism when externally applied will directly affect the substance of the brain, and it remains for us to utilize, so far as may be, this fact.

When we come to consider the action of electricity on the spinal cord and sympathetic, we find that here also there is ample ground for speculation, and room for a wide diversity of opinion.

It is no very difficult matter to expose the spinal cord in the living animals, and to show that the direct application of the current is sufficient to throw the muscles of the trunk and of the extremities into violent contractions. It is as easily demonstrated that if the cord be traversed for some time by the current, that portion which is under the electrical influence finally becomes insensible to all forms of stimulous—mechanical, chemical or faradic. A so-called inhibitory effect is produced. Finally, it is agreed that when the faradic current is applied directly to a certain portion of the upper part of the cord the excitation is transmitted to the cervical sympathetic nerve, and from thence to the radiating fibres of the iris which it animates; similarly by electrization of that part of the cord which traverses the fourth lumbar vertebra, it is possible to induce very appreciable contractions of the vasa deferentia—the bladder and the rectum.

I remarked that it was no very difficult matter to demonstrate the above phenomena, but it is exceedingly difficult to determine just to what extent it is possible to affect the spinal cord in the living man by simple external applications.

If it were possible in our treatment of disease of the cord to directly and solely localize the current, it can readily be seen what increased facilities would be ours in dealing with certain pathological conditions. This unfortunately we cannot do, but as in the application of electricity to the brain, so here we have positive evidence—both clinical, experimental, and pathological—that the galvanic current externally applied certainly penetrates to and appreciably affects the cord itself. Thus electro-physiology again confirms and renders certain the suggestions of clinical experience, and once more it remains for us to utilize, so far as may be, the truth at hand.

The effects of electrization of the exposed sympathetic nerve are so familiar as scarcely to need mention. The well-ascertained fact that the faradic current contracts the blood vessels and lowers the temperature of a part, while the galvanic augments the circulation, is further confirmed by electro-therapeutical observations. The circulation in the arterioles, it is found, is variously modified according to the direction of the current.

The ascending current, acting on a frog's web, constricts the arteries and thereby renders the circulation less active, while the descending current acts in a manner directly opposite.

It must be admitted that electro-physiology is encumbered with many inconsistencies and contradictions, which very materially impair its usefulness as a constantly reliable guide; but the above, with numbers of other equally well ascertained results of physiological investigation, attest its immense importance, and forcibly illustrates the possibilities of a more complete adjustment of the two departments of physiology and therapeutics in the future.

In no other portion of electro-physiology is this uncertainty more manifest than in the experiments in regard to the effects of the closed galvanic circuit on both the muscles and the motor and sentient nerves. One conclusion to which several physiologists hold is, that an inverse current applied to a frog in whom tetanic convulsions have been induced by the poison of strychnia, will dissipate the tetanus.

Mattenci endeavored to utilize this asserted power of the current in the treatment of a case of trismus, but with unsatisfactory results.

A modification of this general statement is found in the assertion of Pflüger, that the irritability of a nerve is lessened only by an inverse current of great tension, while a current of comparative mildness, having the same direction, results in an increase of irritability. The direct current, he claims, produces effects the reverse of this. The phenomenon called "Ritter's tetanus" is an illustration of a still more radical discrepancy; for this observer distinctly states that the direct current has a soothing or paralyzing effect on a motor nerve, while the inverse current increases irritability.

On the other hand, there is, as was suggested, a brighter side to the picture. The influence of tension and direction of the current over the vaso-motor nerves is a guide, more or less capricious, it is true, yet a most useful guide in our efforts to adapt methods of application to certain pathological conditions.

In the power of a current to restore the lost excitability of a nerve, and in the superiority here of the inverse over the direct, and scattered through the whole department of the physiology of electrotonus, in fact, we find sufficient groundwork on which to rear much that will enter as important truths into our system of electro-therapeutics.

It is claimed that a remedy, in order to be "*indicated*" in any special disease, must have certain well-known methods of physiological action that directly meet or counteract the observed pathological condition.

This is, to a certain extent, true. For the relief of a dry skin and a high pulse we resort to diaphoretics and arterial sedatives. To reduce the volume of blood in the brain we have bromide of potassium, and so on; but can anyone tell us minutely and satisfactorily why it is that quinine has a controlling influence over the manifestations of malarial poison, why iodide of potassium tends to eradicate the syphilitic poison, or why opium causes sleep? And yet quinine is indicated in intermittent fever, iodide of potassium in syphilis, and opium in insomnia; although each may at times signally fail to accomplish the desired result.

I freely admit that the special indications for galvanization of the brain, spinal cord, and sympathetic, especially the former, are not by any means so precise or well understood as are the indications for the administration of the above remedies. Perhaps they may never be, but possibly and probably the advance of electro-physiology, aided by clinical experience, will give more exactness to our knowledge.

Because we cannot localize the galvanic current in special portions of the brain; because we cannot perfectly explain or understand its physiological action on the centres of thought and motion, or why this action seems to be frequently adapted to the relief of many symptoms of cerebral disturbance; and, finally, because we cannot uniformly predict that relief will follow the use of central galvanization in certain conditions, it should be no bar to our use of it in this way, and our acceptance of it as a useful remedy in cerebral disease, even although it cannot be said to be indicated in the full sense that a remedy is indicated, which has stood the test of years, and whose exact physiological action is known.

I am led by these considerations of some of the main points of electro-physiology, directly to the question, What methods of electrical application ought to be accepted and recognized by the profession as of incontestable value? And *first* we mention *localized electrization*, since it is the most ancient of all the methods, and probably the only one which is universally recognized, and against the propriety of which no dissenting voice is raised.

2d. *Galvanization of the brain.*—It is so thoroughly established that external applications of the current penetrate directly to and appreciably affect the brain, and, furthermore, it is so palpable to any one who has had much real and rightly-guided practical experience in electro-therapeutics, and whose views are not prejudiced by a too blind and devoted adherence to theoretical considerations, that such applications are often of immense service, that it would be unnecessary to advocate its utility, were it not that authoritative names were pledged to its condemnation. I cannot attempt, in a paper of this character, to consider fully the grounds of this condemnation; but a reference to some of the objections of Cyon, as put forth in his "Principles of Electro-Therapeutics," cannot fail (to say the least) to show their unreasonableness, and to carry the conviction that the learned teacher is more theoretical than practical.

3d. *Galvanization of the Spine and Sympathetic.*—Here again there can be no doubt in regard to the power of the current to penetrate to the nerve-tissues in question.

To be more specific concerning some of the opinions of Cyon, relating to galvanization of the nerve-centres—take his statement in reference to the relative conductivity of the tissues surrounding the cord, and the inference he deduces therefrom. Because the conductivity of the cord is ten times greater than that of the bones surrounding it—while the conductivity of the ligaments through the openings between the apophyses along which the current necessarily travels to reach the nerve-centre, is about equal to the conductivity of the cord—it is asserted that the current will by preference and with all its intensity act upon the cord. He further says, that if the cord was immediately surrounded by a better conductor, say muscle instead of bone—currents of great intensity would be required to affect the nerve-centre, since the flow of the electricity would be diverted by the better conducting muscular tissue. Hence, Cyon concludes that only mild currents should be used when the spine is submitted to galvanization. Such an idea as the above, coming from some less distinguished quarter—would be termed absurd to the last degree. Without any foundation in fact, or therapeutical experience, it would seem to have originated in the depths of his moral consciousness alone, and I take occasion to make this reference from the self-evident fact that the progress of electro-therapeutics may be impeded by the too dogmatic assertions, and the too refined and highly wrought deductions of the purely physiological investigator; as well as by the exaggerated reports of ignorant and credulous charlatans.

4*th*. *General Faradization.*—Of this method I can only say that it is to me absolutely indispensable in the practice of electro-therapeutics. Beginning with this method nearly ten years ago, and at first confining my manipulations in electricity almost exclusively to it, I have not, to this day, seen cause to abandon its practice.

New and valuable methods of application have been proposed and adopted. Through a better and increasing knowledge of its subtle and far-reaching influence, and of the laws which regulate its action, the constant current is indicated over a wider range of neurotic affections, and alone occupies the field of electro-surgery; and yet, if I might roughly approximate the relative frequency with which I even now make use of general faradization in its most thorough form, and all other processes of faradization and galvanization, I should say that fully one-third of the cases indicating electricity are subjected to the first-named method.

There is no tonic influence in medicine comparable with it in power; there is none to which can be accorded such a wide range of application. Why then is it not better understood and more used by the profession, and especially by those who profess mastership in electro-therapeutics? Two reasons would seem to account for this neglect.

First. The time and labor requisite for its successful performance, and the unwillingness of the physician to subject himself or his patient to trouble.

Time certainly is required. and tiresome labor; and so far am I from loving labor for its own sake, that were it not that I know from long experience the impossibility of satisfactorily supplying its place by other methods, I should be among the last to advocate its importance.

Althaus, in his work on medical electricity, speaks favorably and fairly enough of general faradization; but in his estimate of the rationale of its operation, and the effects of the current on the operator—and especially when he would practically discard the method, because he conceives it to be inferior to the application of the constant current for a few minutes—falls into the natural error of one whose opinion is based on theory alone.

It is evident that Althaus has never made even an approach to a satisfactory use of the method. And not only is time and patience required, but much care and not a little skill, which comes only after repeated endeavors.

Second. Another fallacious reason for rejecting general faradization lies in the fear that its relations with electro-physiological laws cannot be fully explained. This objection has already been noticed, but I can give no better illustration of the unreasonableness of the objection, than by mentioning a case of disease of the supra-renal capsules (Addison's disease) reference to which may be found in the recent edition of Flint's Practice of Medicine. For eighteen months the patient, a man aged forty-five, had suffered from an exhaustion so complete, that he could with difficulty drag himself about.

Persistent tonic medication had failed to relieve him in the slightest degree. General faradization was, however, followed by such immediate and unusual results in approximately restoring the strength and the impaired functional activity of the various organs, that I presented the case before the Medical Library and Journal Association as proof, not of the power of the method to cure Addison's disease, but as unmistakable evidence of its remarkable tonic power. Objection was made to the presentation. on the ground first. that the case could not be one of Addison's disease; and secondly, that the method of treatment was not physiological. Concerning the first objection it may be said that a post-mortem, two years subsequently, confirmed the diagnosis; in regard to the second objection I have nothing to remark.*

A fair survey of the entire field of electro-physiological experiments in their relations to electro-therapeutics seems to lead to the following conclusions:

First. Electro-physiology teaches us how to use electricity both in health and disease, *i. e.*, it must, to a great extent, guide us in our numerous methods of special application and in the multifarious manipulations called for in general and localized electrization.

Second. We are taught by these investigations, more correctly and minutely than by any clinical experience in the treatment of disease, the exact effects of the different manifestation of electricity on nerve and muscle.

Third. It enables us to intelligently discriminate in our selection of those pathological conditions that are likely to be benefited by electrical treatment—thereby saving much useless labor in experimental trials.

Fourth. It aids us both in diagnosis and prognosis, although it does not always fully, and frequently it fails wholly, to explain the most positive and brilliant therapeutic results.

In conclusion I would say that medical electricity is the legitimate property of the educated physician alone. On him depends the probability of its elevation and expansion, and on him as well rests the responsibility of its possible degradation and virtual destruction. In all probability its future status is secured, for it rests on foundations too solid to be easily overthrown, but it has grown and is still growing in spite of the opposition of those who would relegate its use to ignorant attendents or to the patients themselves, or who, with limited knowledge of the subject and less experience in its use, assert that their efforts and results in this special department compasses all that there is to electro-therapeutics.

A CASE OF HÆMATOMA OF THE THIGH.

TWO OPERATIONS.—DEATH.

By B. A. Watson, M.D.,

[Surgeon to Jersey City, Charity, and St. Francis' Hospitals.

Mrs. G., aged forty-eight, married, mother of nine children, five of whom are now living; had always been in good health previous to this illness. Her mother, aged seventy-two, is very healthy and strong. Her father died at the age of fifty, of peritonitis. Patient has one sister and two brothers now living; one sister and one brother died when very young; cause of death unknown.

In the month of December, 1870, Mrs. G. fell over an infant's bath-tub, the outer aspect of the middle third of the left thigh coming in contact with the edge of the tub. This injury immediately caused considerable pain and soreness, which lasted until the first of April following, when she discovered a small white swelling (about as large as a hickory-nut), which was slightly painful to the touch. The swelling continued to increase gradually, and soon became very painful, the pains being of a sharp, lancinating character. The patient was not able to sleep or eat well after the 1st of May, and consequently her general health began to suffer.

When I was called to see her, July 5, the patient had to keep her bed the greater part of the day. The tumor was large and fluctuating. The only covering of the contents being the integument, which was of a dark livid hue, greatly attenuated and ready to give way, but the veins did not appear to be enlarged or more tortuous than usual. The tumor was freely opened, when more than a pint of disorganized blood, containing no coagula, was evacuated. Microscopical examination showed blood corpuscles and hæmatoidin. A further examination of the tumor satisfied me that the fluids had been contained in a sac, and, for the purpose of destroying this, tr. iodine was injected, after which the cavity was packed with lint previously saturated with the same. The discharge from the wound was of a thin dark color, resembling closely the fluid discharged at the time of the evacuation. There appeared within a few days after the incision a fungus growth, which had its origin from the sac, increasing with great rapidity, soon filling the entire cavity, and then spreading over the adjacent parts, somewhat resembling an immense rose. Hemorrhage from this fungus was at times free, but readily controlled by pressure; there was also sloughing from the same at various times. August 6. a consultation was held with Drs. Sayre and Varick, when it was determined to remove the tumor by excision. The following day I operated, with the assistance of Drs. Varick, McGill, Caldwell. Wolfe, and others. The part excised was elliptical in form, and measured, after it had been allowed to contract, nine inches in length and five inches in width; apparently not a particle of the morbid growth was allowed to remain. The wound was then closed by the use of pins and sutures. The disease had not extended below the fascia lata, and this formed the floor of the wound after the operation. For nearly two months after this operation the patient was steadily improving, and the incision had almost healed, when some pain was felt at a point near the upper extremity of the incision. The tissues at this point were somewhat discolored, thickened and hardened, and a second tumor presented itself, which grew rapidly for a week, and was then removed by the knife. This second growth was found to be beneath the fascia lata and to involve the subjacent muscular structures. The fascia was crowded up so that it was almost in contact with the integument at the point where the tumor emerged. Under the microscope the tumor exhibited well-marked stroma and heterologous cells. The second growth was not nearly so large as the first. The wound was treated the same as the previous one, and in about six weeks had completely healed. The patient remained free from pain for nearly three weeks, when it returned, being of the same character as at first. The granular system was not involved at the time of either the first or second operations, to such an extent as to be apparent during the most careful examination; neither was there any marked cachexia. The pains had been slight from the time the tumor was evacuated; the appetite had much improved under the use of tonics, and sleep was restored by freedom from suffering. There was considerable discoloration at various points in the old cicatrix, and at these points there soon appeared nodules, which rapidly increased in numbers. Her friends were now informed that the only hope, even for temporary relief in operative interference, must be found in amputation at the hip joint. The present extent of the disease would not permit an operation at a safer point. This fact they immediately communicated to her. She replied: "I am willing to submit to this danger if there is any prospect of a permanent cure." I could not promise a cure, or even a very long stay of proceedings. The danger of the operation was fully understood by herself and family. Their final decision was in favor of allowing the disease to take its course.

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* The specimen, together with a history of the case, was presented before the New York Pathological Society.

The rapidity with which the entire soft parts of the thigh became involved was truly surprising. The patient became more feeble every day, and the cachexia was soon very marked. The appetite was very slight, the sleep disturbed and unrefreshing; pains constant and severe. Death came to her relief. February 6th, 1872. An examination of the parts showed the tissue of the thigh to be wholly involved, with the exception of the femur, which was apparently sound. Through the soft tissues the finger was easily passed in any direction immediately after death.

The diagnosis of hæmatoma was made at the time the sac was opened, and its contents examined microscopically.

This diagnosis was based on the *origin*, physical symptoms and microscopic examination as detailed in the preceding report.

Progress of Medical Science.

JOHNSEN ON THE RESULTS OF TREATMENT BY MASSAGE.—It is well-known that this method of treatment has been very popular in the north of Europe during the last few years, more especially among the Danes. They usually mean by the term massage, the use of such passive manipulations as rubbing, kneading, percussing and rolling of the soft parts, though some of the writers use it more loosely so as to include passive movements of the joints. A full description of this treatment, as applied to joints, and especially the method known as Mezger's of Bonn, was published by Drs. Fisher and Cutter, in the MEDICAL RECORD, for Jan. 1st, 1874. In the *Hospitals Tidende* for Dec. 9th, 1874, Dr. Johnsen has given a record of the diseases for which he employed massage, during a period of about one year and a half, and the results which he has obtained appear to mark a new era in the treatment of a certain class of affections. The following is his list of diseases with the number of cases treated, and the results.

1. Distortion. Under this term the author apparently includes sprains. He says that acute cases are rapidly cured, the slighter ones at one or two sittings while chronic cases even with considerable hyperplastic growth, may also be cured, or at least relieved by this treatment. He gives four cases, two of which were cured, one in 3 and the other in 10 sittings; while two were relieved, one in 15 and the other after 23 sittings.

2. Acute serous synovitis. The author states that this disease can always be cured by massage, and the time required will vary from a day to a month. The two cases he treated were of the knee-joint, and were caused by a luxation of the semi-lunar cartilage. One was cured by 36, and the other by 47 applications of massage.

3. Chronic serous synovitis. This disease requires great patience on the part of the physician as well as of the patient, in consequence of the enormous thickening of the capsule and the surrounding ligaments, and the atrophy of the muscles of the affected joint. Twelve cases of this knee-joint trouble were treated and all were cured but one, and in this case the patient tired of the treatment after 18 applications. In the other cases, the number of applications were from 19 to 176.

4. Hyperplastic synovitis also requires perseverance. A number of the patients tired of the treatment before much improvement was manifested. The number of cases treated was twenty-seven. Of these seventeen were cured by from 4 to 121 applications, and ten were improved by from 43 to 136 applications.

5. Tuberous hyperplastic synovitis. This disease, the author insists, can certainly be cured by massage, when there is no deeper lesion, but it is sometimes difficult to determine the absence of such a complication. The same is likewise true of granular hyperplastic synovitis. Here it is also difficult, at times, to decide whether the bones are at all diseased. In doubtful cases massage may be applied carefully, and if it does not cure it will not interfere with the subsequent performance of a surgical operation. Two cases are reported of knee-joint disease; one was cured by 270 applications, while the other was improved by 110.

6. Flaccidity of the capsule of the knee-joint. Three cases are reported, and in each both joints were affected. Two cases were cured, one by 25 and the other by 36 applications; the third was benefited by 92 applications.

7. Synovitis of tendons. Massage, the author says, is peculiarly suited for the treatment of this disease. The acute crepitating form of the disease can be made to disappear in a very short time. Even chronic cases do very well, though old cases are occasionally very stubborn. Six cases are reported, of which three were acute, and were cured by from 5 to 21 applications: the other three were chronic, of which one was cured by 153 and another by 125 applications, the third was improved after 12 sittings.

8. Myositis. This term, the author says, explains the morbid process that, in the great majority of cases, is the palpable cause of the affection called "muscular rheumatism." If treatment is commenced before the disease has existed for a long time, it can always be cured. Even in chronic cases it can be very much benefited, though often very stubborn. Nineteen cases are reported, of which eleven were cured by from 4 to 72 applications, and eight were relieved by from 12 to 160 applications.

9. Sciatica, and other neuralgic affections, when they do not have a central origin, may be cured by massage All the cases were of sciatica, were six in number cured, with a single exception, the patient in this latter case discontinuing the treatment after the fifteenth application. The other five required from twenty-seven to fifty-two applications. Of these cases, three had resisted all other previous methods of treatment.

CONDITIONS WHICH CALL FOR THORACENTESIS, AND SOME OF THE ILL-EFFECTS FOLLOWING IT.—In an able communication on Pleuritic Effusion, Dr. Wardell thus states the morbid conditions which may be regarded as the states indicating the operation:

1. In all cases in which inspection and the physical signs give evidence of a large quantity of fluid, when there are symptoms of compression of the lung, and there is manifest cardiac displacement.

2. When there are urgent dyspnœa, an irregular pulse, and threatening of orthoproca.

3. When the affected side is smooth and rounded, and the intercostal spaces are effaced or protrude; when measurement proves bulging; when the dulness in the chest is complete, or demarcated, and absolute; when there is abolition of tactile fremitus; when there are broncho-phonic voice, tubular breathing, and absence of breath-sound; when the patient can only lie on one side, or in diagonal position; and when there is the hippocratic sign of succussion.

4. When the exploratory needle proves the fluid to be purulent.

5. If the heart be pushed from its normal situation, and the apex be substernal or beyond the right sternal edge, or if it be thrust towards the left hypochondrium, or if it be lost; when it becomes presumptive that the organ has been driven inwards and backwards; and when, on the one side, the liver depends abnormally into the abdomen, and when on the other side the relaxed and down-pressed diaphragm so displaces the spleen that its free edge can be *felt*.

6. When half the thoracic cavity is filled, and a month or so shows no proof of absorption, the longer the delay the less are the chances of expansion.

7. In those exceptional cases of double pleurisy when both cavities become half-filled with effusion, and dyspnœa shows the lung-space to be dangerously encroached upon.

8. In pulmonary phthisis, where the accumulation of serous or sero-purulent secretion causes distress, and when the other lung assumes the symptoms of bronchitis or pneumonia, the operation should at once be performed.

9. In mechanical hydro-thorax it may be had recourse to, though with no object to cure, but with merely a view to prolong life, and to aid the action of medicinal remedies.

10. In children, whose chest-walls are thin, and in whom the white tissues are more developed and confer greater resiliency to the thoracic parietes, and whenever there are certain evidences of fluid, it should, without delay, be evacuated.

11. In hydro-pneumothorax it may, generally with safety and benefit, be employed.

12. Pointing externally should never be waited for.

13. Under certain circumstances repeated tappings are required.

The following facts are also introduced as illustrating what may occur in some cases.

Mr. William Date, of Crewkerne, tapped a patient, who had all the signs of simple pleuritic effusion, and was surprised to find that pus made its exit. Although the aspirator was employed, the pus that reaccumulated became offensive. The patient was tapped several times, with great relief on each occasion, but subsequently sank and died. No post-mortem was permitted.

In the *Journal de Médicine et de Chirurgie*, for December, some observations are reported as having been made by M. Peter, of Paris, at the Hôpital St. Antoine. He remarked that puncture with the trocar in purulent pleurisy is often followed by the formation of a purulent fistula. It was important not to be misled on this point, and on every occasion the patient and his friends should be forewarned. Immediately after the puncture the wound appears to close, but after a time it opens, discharges a little pus, closes again to reopen later on, and a permanent fistula is gradually formed. Unless the patient be forewarned in such cases, the physician will be probably accused of unskilful management.—*The Doctor*, January 1, 1875.

TREATMENT OF GLANDULAR SWELLINGS OF THE NECK BY THE INJECTION OF ACETIC ACID.—At the Hospital for Diseases of the Throat, Golden Square, London, Dr. Morell Mackenzie is now treating enlarged and indolent glands about the neck, especially in adults, with injections of the dilute acetic acid of the British Pharmacopœia. Seven minims is the quantity injected the first time, and ten minims or more may be used if several injections are necessary. They are made with an ordinary hypodermic syringe. One of two results may follow the injection. Either the gland suppurates, and the pus is discharged as in an ordinary abscess, or else it disappears gradually by interstitial absorption, without any suppuration whatever. It is impossible to know beforehand whether suppuration will occur. In some cases one injection will excite suppuration, in others several are required. It is stated that by this means, those unsightly lumps, which formerly were treated for months by iodine paint and internal remedies with indifferent success, can now be removed in a few weeks with only trifling annoyance to the patient, and, at the most, with a slight scar.—*Irish Hospital Gazette*, Jan. 1, 1875.

SPLENIC LEUKÆMIA.—The January number of the *American Journal of the Medical Sciences* contains a very interesting article by Dr. Da Costa, in which he describes two cases of splenic leukæmia that were treated by the hypodermic injection of ergotine. Of these two cases, the first, which terminated fatally, is minutely reported. The more noticeable symptoms in this case were progressive emaciation, an inordinate appetite, a "sallow, unhealthy aspect," anæmia, together with the physical signs of an enormously enlarged spleen. The region of dulness extended from the sixth intercostal space down to the crest of the ilium, and from the median line in front to a line descending from the axilla. On a level with the umbilicus, the dulness extended two inches across the median line to its right. Microscopic examination of the blood showed the leucocytes to be in the ratio of one to two of the red globules. Five grains of ergotine in glycerine and water were injected hypodermically every second day, and subsequently the dose was increased from eight to ten grains. This having been continued for three weeks, the size of the splenic tumor was found to have diminished by one inch in all directions. The general condition did not, however, improve, and as the patient complained of the pain occasioned by the injections, they were discontinued. One quarter of a grain of iodine in twelve minims of glycerine and water was then injected in the same manner, and caused some further reduction in the size of the spleen, though the diminution was less than that which followed the ergotine injections. Still the patient's health did not improve, and finally a local peritonitis appeared upon the right side, which was attended with fever and intense pain, until finally death ensued from exhaustion. On post-mortem examination the spleen was found to measure 13½ inches in length, 6½ in breadth, and 4 inches in thickness. Its weight was 4 lbs. 14 ozs. Under the microscope all its elements appeared hypertrophied. The liver showed doubtful appearances of what is described as "leukæmic swelling."

In the second case the disease was of a less aggravated type. The spleen was much enlarged, giving "a dulness extending from a point in the sixth intercostal space two inches below the nipple, in a line with the anterior margin of the axilla, to a distance somewhat below the ribs; in all, a vertical diameter of six inches." Microscopical examination of the blood showed in two specimens respectively eighteen and twenty white corpuscles, in comparison with twelve and fourteen respectively of normal blood. In this case, as in the former, ergotine was injected hypodermically in the same manner. After eight injections, extending over a little more than a fortnight's time, the patient's condition had been decidedly benefited. Percussion over the spleen showed a dulness of only 3¾ inches in the vertical diameter, and an examination of the blood found the white corpuscles in nearly normal proportion. The patient was discharged as cured.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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NEWSPAPER ADVERTISING.

Newspaper advertising is beginning to get into fashion again. With the flimsy, shallow and transparent excuse of educating the public on matters pertaining to general health, the secular press is full of the utterances of men who itch for public notoriety. In many quarters not only has the ordinary modesty departed, but in its place we have the impudent defiance of the meanest quack. The Good Book tells men of every class to beware of wolves in sheep's clothing, and this advice applies at present with particular force and significance to our profession at this time, for never before have these wolves been better clothed, been more sneaking and more dangerous.

There is no disguising the fact that the object of these men is that increase in business which public notoriety will give them. The profession understand this as well as they do, but these scientific quacks are tricky enough to cover up their tracks either by a show of innocence of intention, by a pretended indignation against the paper which did them the service, or by a hypocritical regret that their honest motives should be impugned. These are taken in the light of so many apologies to their brethren for acts which they themselves know to be wrong, and they go on advertising as before.

We are aware that there are some instances in which a medical man is paraded before the public against his will and without his knowledge, but these instances are very rare indeed. His brethren are willing to acknowledge this fact, and charitably make every allowance in his favor. The general character of such men and their acknowledged respectability in the profession weigh very strongly against any suspicion of wrong-doing. But these are only occasional and isolated exceptions to the present rule of professional advertising. Such men get before the public by accident, but never by design, and suffer the infliction but once or twice during a long professional career. These are not to be mentioned in the same breath with the professional advertisers to which we refer.

Our remarks are intended to apply to those who have no reasonable excuse for their disgraceful deeds. When we come to consider the facts in the individual cases, they can be susceptible of but one explanation. Here, for instance, is a physician whose communications to a daily paper concerning his medical doings, and his individual opinions put him in the light of a regular contributor. It is not prudent to have his articles over his own name, but such a responsibility is easily shifted upon the ubiquitous Jenkins, who, by the merest accident, appears to be on hand at the right time. The public may not understand how this is done, but the profession do. Of course our great man objects to liberties being taken with him; of course he says to the interviewer that such publications would injure his reputation with his professional brethren, but these protests are matters of form, as a part of some prospective testimony before a committee of ethics, and are so mildly and naïvely made that Jenkins understands the situation at once, and runs the risk of any personal offence. For the great man to express regret and indignation at the liberties taken with him in the next morning's issue of the paper, is another matter of form; the more frequently he is called upon to go through with it the more natural can he act his part. The profession must not call him to an account, because his protestations of innocence and his indignation at the betrayal of that innocence put him above the technical requirements of the code. Such men are now multiplying in our midst, men who have never been capable of making a reputation among their peers, but who are determined to make it with the public. They belong to a certain class, and every time they make their appearance in the newspaper columns the profession is mortified, disgusted and indignant. The act is not looked upon merely in the light of an unfortunate blunder, but as a downright act of the most conniving kind of quackery.

We have repeatedly expressed the opinion that it was the duty of the profession to elevate itself in the eyes of the public, and that one of the ways to do this was to educate the people up to the point of the requisite appreciation of our merits. But this is very different from individual advertising. In the former case the man is a leader of public opinion, in the other a quack. Our aim should be to advance the profession as a body. This cannot be possible so long as the few bold and conceited charlatans pretend to speak for it and drag it through the dust of newspaper sensationalism for their own pecuniary benefit. But these men can never be reached by reason.

A great many advertisers go even farther than this, and furnish questionable professional articles, over their own signatures, to the daily papers. One invites reporters to be present whenever he reads a paper before a medical society, another furnishes a medical lecture or anniversary address, while another writes to say that the profession needs more education, leaving the public to infer that, as a body of men, we are too ignorant to be trusted. Naturally, the public look upon these individuals as oracles, and naturally, too, the profession wraps itself in its offended dignity and bows its head in shame.

PREMATURE BURIAL OF MEDICAL PAPERS.

If it were possible to estimate accurately the amount of ink and paper—to say nothing of brain and muscle—consumed in the preparation of the various short-lived additions to the medical literature of the day, the statistical information thus acquired would be positively startling. We have always felt a kindly sympathy for those writers whose toil and trouble over the elaboration of essays which scarcely survive beyond the period of still-birth, or merely enjoy—if enjoyment it can be—a few flickering days of extreme obscurity. Many of these papers possess a well-developed vitality, and die mainly because they are not placed in an atmosphere congenial to their growth, or they are prematurely interred in unknown graves, from absolute lack of appreciation of their inherent mental or physical force. Of this class are the various literary productions which, under the name of "Transactions" of National and especially of State organizations, find a temporary resting-place, in undisturbed repose, on the practitioner's book-shelf, to become, in time, a matter of interest to the ragman. The contributions which they contain are literally buried alive, and soon pass into undeserved oblivion, the author alone dropping the regretful tear. There is hardly a volume of "Transactions," in these days of advancement, but contains some paper worth preserving in the columns of a medical journal, but, in the present system of publishing, the profession at large is but little benefited. We seldom see extracts in medical serials from these annual *omnium gathera*, and when they do appear they have a decidedly *post-mortem* odor, on account of the still-born character of the original paper. As we have already intimated, in other phraseology, the assistance of the accoucheur and the nurse is alone needed to ensure the prolonged healthy existence of these literary bantlings; the resurrectionist has but slender hopes of success. The whole system is radically wrong, and should be speedily amended. Far better would it be to inaugurate at the earliest available moment a new rule in this respect, and in the pages of a medical journal of respectable circulation—if need be, by authoritative selection on the part of the State Society itself—give deserving contributions a prominence which they have never yet possessed.

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Dr. Keith, of Edinburgh, is said to have performed ovariotomy now one hundred and ninety-six times, with the low mortality of late years of only ten per cent.

Reports of Societies.

ACADEMY OF MEDICINE.

Stated Meeting, Feb. 4th, 1875.

Dr. S. S. Purple, President, in the Chair.

PNEUMONIA, ITS PREVAILING TYPE, ETIOLOGY AND TREATMENT.

The discussion was opened by Professor Austin Flint. After a few preliminary remarks the doctor proceeded to indicate some of the various points of inquiry which suggest themselves in connection with the subject under discussion.

First. Attention was directed to the diversities which diseases present at different times and different places. There can be no doubt but that such diversities exist in all diseases that prevail epidemically or endemically. For example, intermittent and scarlet fever, in a very large number of cases, are attended with little or no danger to life, yet at certain times they become two of the most fatal of affections. This difference with regard to severity and tendency to complications, with our present knowledge, is difficult to explain. That is, whether it is due to the degree of the essential cause, or whether due to difference in susceptibility in the system. This fact, however, will apply more or less to sporadic diseases, and also to general diseases and local affections. For example, the disease under discussion presents a marked difference in type at different times and places. The disease is of much greater gravity in South than in this climate, etc., etc. Does pneumonia at the present time, as it prevails in this city, present any peculiarities?

The histories of four fatal cases were read. One case was a young man; another was an aged woman; another a middle-aged person.

In the case of the young man the physical signs were a little slow of development. In the second case patient was apparently doing well, and suddenly violent delirium set in and patient died within a few hours.

In the case of the old lady, death occurred unexpectedly, for she was laboring under a mild form of the disease. Fever was mild in one case, and high in another. Slight mental disturbance or delirium was present in all the cases.

The question of treatment was next considered.

In connection with this subject the record of a case was read which was made in 1837.

That patient was bled freely (℥ xxx. in the recumbent posture) and took calomel and tartar emetic freely. He was taken with the disease Jan. 22d, and March 1st was convalescent. This suggests the question. was the disease controlled by the bleeding, etc. With regard to blood-letting in pneumonia, reference was made to the work of Louis and to the statistics of Dr. James Jackson, as they appear in his supplement to the work of Louis. The doctor also referred to his own cases, 133 in number, reported in 1861. The conclusions of Louis are that bleeding has a happy effect upon the progress of the disease, and shortens its duration; that this effect is much less than commonly believed, but that patients bled during the four first days recover four or five sooner than when bled at a later period.

Second. Pneumonia is never arrested at once by blood-letting. If an opposite opinion is entertained, it is because the disease has been confounded with another, or because the severe symptoms have been relieved.

Louis, it seems, compares the duration in those cases in which blood-letting was performed early with the duration when the blood-letting was performed later in the disease. The question now arises, may not the bleeding performed in the latter part of the disease have tended to prolong its duration, and the difference between the cases, with regard to duration; not because early blood-letting had a tendency to shorten it, but rather that the blood-letting resorted to in the latter stages of the disease had a tendency to prolong it.

Dr. James Jackson arrives at the same conclusions as those of Louis; but the same question is pertinent with reference to his researches.

Does bleeding ever arrest pneumonia? In some of Louis' cases was there evidence that the disease was arrested.

In none of Dr. Flint's cases did the evidence appear that the disease was arrested by blood-letting.

He mentioned two cases, occurring in Bellevue Hospital, in which the diagnosis was made very early, and in which the disease appeared to be arrested by blood-letting. In these cases there may be room, perhaps, for doubt with regard to diagnosis, and then, again, the question arises, does not pneumonia of itself occasionally abort?

In considering the effect of remedies we must take into account this important fact, namely, that pneumonia limited to one lobe, and not complicated, has no tendency *per se* to fatal results. The disease kills by its complications and the extent of its invasion. The question of treatment then, resolves itself into this, do the measures adopted prevent grave complications in the invasion of more than a single lobe? If, therefore, blood-letting, or other measures of treatment, diminish the rate of mortality, this result is obtained either by directly lessening the invasion of other lobes and grave complications, or indirectly fulfilling the same object by shortening the duration. To determine the correct answer to such inquiry requires careful and conscientious men of clinical experience.

With regard to the employment of opium in the treatment of pneumonia. In the time of Louis opium was rarely employed in the treatment of any inflammation, acute in its character. Louis, however, used the syr. of poppies in the treatment of pneumonia, and regarded the influence of opium as beneficial. Reference was made to forty-nine cases in which he (Dr. Flint) has given opium quite freely. He added that he regarded it an important measure of treatment, especially in a certain class of cases characterized by vigilance, restlessness, perhaps delirium, in short, a general condition of nervous erethism.

He ventured more, that under similar circumstances, in *all* local inflammation, opium is an agent of the greatest value. It appeared, then, that the mode by which the good effect is produced, is by placing the system in a better condition to tolerate the local affection. And this is important in the treatment of all diseases which have a tendency to prove fatal by asthenia. With regard to cardiac or arterial sedatives: the value of these remedies, such as veratrum, aconite, which perhaps are preferable to tartar emetic, must be determined by analysis of cases.

Another important item in the history of the disease is the formation of heart clot. Measures, therefore, which have a tendency to prevent this accident are important. Ammonia has been used for this purpose, based upon the researches of Richardson, but he was not prepared to say how well-founded the suggestion will prove to be. He had employed digitalis, upon the theoretical idea of giving increased power to the heart's action and perhaps in that manner diminish the liability to the accident.

Finally a new object has been presented in the treatment of this disease, namely, to diminish the condition of hyper-pyrexia. This is an object presented not upon the consideration that it is a symptom or effect acting secondarily, but that it is an agency actually destructive to life. Among the remedies to be employed for reducing the temperature of the body, quinine is prominent at the present time. Reference was made to his own analysis of cases published.

We have, however, a more potential agency in cold water, used in the form of douche, bath, or pack.

It appeared to him that the testimony is now sufficent in its behalf to warrant its use; and that it can be employed without hazard.

The question of alcoholics and alimentation enters into the subject of treatment, but it is finally well established that all cases of disease which have a tendency to destroy life by asthenia, require sustaining diet, and in many cases stimulation.

The doctor read from the *Irish Hospital Gazette* concerning what was termed by the writer "sewer-gas pneumonia." He regarded it as an important subject, and perhaps one worthy of more careful consideration than it has hitherto received.

The discussion was continued by **Prof. W. H. Thomson.** He first read the histories of five cases treated in Bellevue Hospital, illustrating the antipyretic effect of cold water in the treatment of pneumonia.

These cases were very much alike, and represented a similar class of cases with regard to exciting causes, so far as temperature and climatic considerations are concerned. All had received carbonate of ammonia in ten-grain doses every two hours, and quinine in two-grain doses, good diet, and the local application of ice in ice-bags to the chest.

There was one fatal case. That patient died of pulmonary œdema. There was, however, in that case a manifest improvement with regard to lowering temperature after the application of ice, the same as in the other cases.

The ice was permitted to remain upon the chest until the temperature had been brought down to 100° or below, and then removed. This required from three to eight or ten hours, even more, and it was necessary to repeat the application once in twelve to seventeen hours. The ice was reapplied when the temperature arose.

He was not able to conceive why cold should be employed in the manner recommended by Niemeyer by means of compressors.

He was of the opinion that cold is not employed to the degree it should be on account of the manner in which it is recommended to be used by teachers of medicine. He regarded wetting the skin with a single drop of water as so much draw-back upon the efficacy of the agent employed. The object aimed at, pure and simple, is abstraction of heat, and the prolonged contact of water is a source of irritation, and the wet clothes a source of discomfort. Now, any degree of cold can be obtained by applying ice shut up in a water-tight receptacle, and thus avoid all irritation and discomfort to the patient.

The india-rubber bag, of course, is the most convenient receptacle that can be employed.

He objected to the numerical system employed by Louis, in the consideration of the comparative value of different plans of treatment, for there is scarcely a disease that we are called upon to treat that is so little an independent disease, when we take into consideration the results and sequelæ, as pneumonia. For this reason, he did not think that any reliance could be placed upon records of results unless we have a record of all the possible available facts in the history of the patient. For instance, why is pneumonia so much more fatal in malarious regions than in regions where there is no such influence present?

In an extreme case of congestive chill there is a sudden enfeeblement of the heart, and after death we find the ventricles in a great state of relaxation and engorgement. From the beginning throughout, the symptoms such as feeble or absent first sound, and clear distinct second of the heart, have indicated more or less paralysis of the heart.

With this comes engorgement of the lungs, liver, and other organs of the body. We have, therefore, an influence that begins with weakening the power of the heart over the pulmonary circulation, and we can readily see how that influence may affect the results in cases of pneumonia.

Again, take a case of this kind: one in which a patient with very slight pneumonic symptoms, temperature low and amount of lung involved small, and yet the constitutional symptoms are very grave, and perhaps it is found out that the patient has had ornal disease for years, and death follows from pulmonary œdema. Such points are of the utmost importance in the history of the case. Now, how much can we know with regard to the value of statistics unless we have a correct knowledge of the antecedent condition of the patient? Nevertheless, in ordinary acute pneumonia we have been led to regard the chief danger, aside from temperature, to be found in the heart, and acting upon that principle he had been using carbonate of ammonia very freely, regarding it as the most certain cardiac stimulant that can be given and continued for any great length of time. He administered it in ten-grain doses every two hours. Along with this he administered one grain of quinine every hour.

When the pain in the side is severe at the commencement, he applies three or four leeches, and that is the extent of his blood-letting. The leeches are applied to act through nervous association exclusively, and not at all upon the general circulation, which is absurd.

The quinine is administered both for the purpose of obtaining its anti-pyretic effect, and to prevent, in a certain degree, the formation of croupous exudation in the lung, and also very certainly to delay the tendency to suppuration. The application of ice is for its anti-pyretic effect.

When ice cannot be obtained be would use warm poultices covered with oil silk. This would be his routine treatment if called upon to state it.

He very much doubted whether hospital statistics could ever be made so available as are the careful statistics of private practice.

PROFESSOR LOOMIS remarked, that in discussing this question the etiology and treatment should always be associated. This is true not only of this, but of all diseases. It seem to him that we cannot treat any disease, but especially pneumonia, unless we are familiar with the cause which has given rise to its development.

With reference to pneumonia, as in other diseases, we have the predisposing and exciting causes; but of all the predisposing causes, the most important is *age*.

The disease is rarely met with in children under five years of age, that is, the ordinary acute pneumonia under discussion this evening. The disease is most frequently met with between the ages of twenty and forty years, and above sixty years of age. Climate also has much to do with the disease as a predisposing cause. Poverty and intemperance again are powerful predisposing causes.

His impression was that the majority of cases of pneumonia occurred when the patient was in a condition of debility.

Now, when a state of debility is present, dependent upon almost any influence, a pneumonia may be developed, but then it cannot be regarded as an idiopathic pneumonia. He questioned very much whether idiopathic pneumonia is a disease very frequently met with, etc. It is described in books, it is true, but if a man under the influence of alcohol, or in a condition of chronic alcoholism, places himself in a position where he will be exposed to cold, and contracts a pneumonia, it is an alcoholic pneumonia that is developed. Again a man is under the influence of malarial poison, we are just now staggering under its influence, and we expose ourselves to change of temperature and a pneumonia follows, we have a malarial pneumonia; and, perhaps, the same thing may be said with regard to sewer-gas which has already been alluded to. Then, again, we have a large number of diseases depending upon a specific poison, such as septicæmia, pyæmia, rheumatism, etc.; all the list of diseases which depend upon mal-assimilation. When the exposure is made and the pneumonia is developed in such cases it is dependent upon the condition present in the system of the patient, and that condition of system must enter into the question of treatment.

Taking this view of pneumonia it appeared to him that when an attempt is made to study statistics with regard to the results of treatment, one finds himself in a forest at once. There are two important things to be accomplished in the treatment of pneumonia.

First. We are to look after and if possible find the cause. Not the exciting cause, but the condition which has preceded that and placed him in the pneumonic condition.

Second. We wish to reduce the temperature. This is an element of danger in any disease: and, when it rises high, it is the duty of the physician to resort to some measure for its reduction. When the temperature in a case of pneumonia does not rise above 103°, it was the opinion of the doctor that it might better be left alone. When, however, the temperature rises above 105° it should be reduced as soon as may be. As far as his experience went, it was against the use of cold application to the chest.

He had noticed two things in connection with this plan of treatment:

First. A tendency of the pneumonia to spread.

Second. That the tendency was towards only a temporary control of the temperature.

There are certain days upon which crisis occurs, and the temperature falls, consequently they must be kept in mind, and if the temperature falls upon those days, no matter what means are resorted to for its reduction, we cannot claim that it should be ascribed to the influence of the remedy employed at that time. It is believed that the elevation of temperature depends upon the rapidity with which molecular metamorphosis goes on in the body. Now the question arises, do we know of any means for arresting this metamorphosis? If so, then that is the remedy that should be employed.

He believes that the sulphate of quinine possesses this power, and that to accomplish this effect, it must be given in large doses. Clinically, he was certain that a temperature of 105° or 106 can be lowered one or two degrees by a full dose of quinine, and the smallest dose that he would employ for that purpose would be ten grains. He was not certain that he had had sufficient observation to warrant him in condemning the use of cold in the treatment of pneumonia, but thus far his experience had not been favorable to its use, and for the reasons already stated. Another important object in treatment is to sustain the heart's action. As far as his observation had extended these patients die from heart failure, the heart no longer having power to carry on circulation.

He regarded such accidents as heart-clot, pulmonary œdema, cyanosis, paralysis of the bronchi, etc., as the result of failure of the heart to properly perform its work. Consequently, he regarded the condition of the heart as the cause of death in pneumonia in a great majority of cases. To sustain the action of the heart, nutrition and alcohol are the most serviceable agents at our command. It is true alcohol has been abused and injudiciously used, but when the first sound of the heart is feeble, some cyanosis is present, collateral œdema is imminent, etc., alcohol acts in a most remarkable manner, and sometimes only a few doses are required to carry the patient over the point at which failure in heart-power has manifested itself. Where the patient has been addicted to the use of alcohol, it should be administered from the beginning.

(Discussion to be continued.)

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 27, 1875.

Dr. F. Delafield, President, in the Chair.

Dr. Finnell presented an intra-uterine tumor, removed from an unmarried female, aged thirty-five, whose death was caused by pyæmia, the result of an attack of metro-peritonitis. The post-mortem examination revealed the presence of pus in the pelvic cavity.

Dr. F. remarked that the specimen was interesting in connection with the frequent attacks of uterine hemorrhage which clearly pointed to the existence of a polypus, and which latter could have been removed by any competent surgeon had he seen the case.

In this connection he referred to two similar cases of polypus which he had successfully removed by dilating the os with sponge tents.

Dr. Sell alluded to a case in his experience in which dilatation was effectually accomplished by the laminaria digitata.

PYO-NEPHRITIS—GUMMY TUMOR OF CORD.

Dr. Delafield presented a specimen of pyo-nephritis, removed from the body of a man, æt. fifty-four, who entered the Roosevelt Hospital, January 3. He had primary syphilis twelve years before, the chancre having been followed by secondary symptoms. On the 28th of December, 1874, the first symptoms he noticed about himself was that his stream of urine was small, and finally stopped altogether, and after a day or so he suffered complete retention for thirty-six hours. From this time until his admission the catheter was employed. After admission a good-sized instrument was passed into the bladder with ease and his urine drawn off without difficulty. One week previous to admission he began to lose power in his legs, and after having been in the hospital a few days he began to pass his fæces involuntarily, and was unable to walk at all. Although the paralysis was almost complete there was a considerable amount of sensation left. The urine, which had to be drawn off in consequence of paralysis of the bladder, was alkaline, and contained pus and blood. The latter was so much in quantity on the 18th as to amount almost to hemorrhage. Coincident with this condition there was a marked rise in temperature, with drowsiness, and he died the next day comatose.

At the autopsy the organs of interest were the spinal cord, bladder, and kidneys. In the cord there was a gummy tumor, having its origin in the inner layers of the dura mater, involving the pia mater, and to some extent, the tissue of the cord itself. In consequence of this condition of the cord there was marked cystitis, following which was pyelitis, and lastly, the pyo-nephritis, beautifully characterized in the specimen presented by the accumulation of pus between the kidney tubules.

Dr. Finnell related the particulars of the post-mortem examination which he held upon a child aged five years, who died of cerebriform cancer of the omentum. Death occurred suddenly as the result of the rupture of a large vein through the centre of the mass.

Dr. Heitzmann presented a specimen of catarrhal pneumonia on behalf of Dr. Lewis Smith, and described in detail the pathological anatomy of cheesy pneumonia.

COLITIS, AND FUNGOID DEGENERATION OF RECTUM.

The Secretary presented on behalf of Dr. John Q. Bird, of Jersey City, a specimen of colitis with stricture of the rectum. The following was the history of the case: Edward Dorrington, æt. twenty-four years, a printer, admitted to the Hudson County (N. J.) Hospital, February 10, 1874. He complained of more or less pain and diarrhœa for a year previous to admission, which prevented him from following his usual vocation. On admission, there was excessive pain over the abdomen, not increased on pressure, and obstinate diarrhœa, there being from six to twelve passages during the twenty-four hours. Following each of these there were rectal growths, having the appearance of large fungoids. These growths were reduced with much difficulty; but continuing to protrude for several months, a number of them were ligated at different times by the attending surgeons.

The urine was never examined as there were never any symptoms pointing to any particular trouble in the kidneys. Acute tuberculosis was developed about three months previous to patient's death. The diarrhœa continued until death.

Sectio Cadaveris.—Thirty-six hours after death body extremely emaciated. Both lungs were found firmly adherent to the chest-walls. The adhesions were dense and of a white color. There were several cavities throughout the lungs of variable size, one being as large as a small orange. Some of these were distended with a brown dirty-looking fluid of the consistence of cream, and having an intense gangrenous odor. Others contained a fluid having the appearance and consistence of pus. The lungs in various portions were studded with small indurated nodules, about the size of a pea. In the upper portion of the left lung these nodules seemed to coalesce and form a mass as large as an orange. Peritoneal membrane everywhere healthy; the stomach felt indurated towards its pyloric end, and on being cut into, it was found somewhat constricted and thickened near the pyloric orifice. The rest of the stomach and small intestines were healthy. The rectum, colon, and cæcum were more or less involved on their mucous surfaces with these fungoid excrescences. These growths did not extend beyond the ilio-cæcal valve.

Dr. Delafield remarked that the appearances presented were very frequently met with after colitis.

NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY.

Stated Meeting, January 18, 1875.

The **President, Dr. Meredith Clymer**, in the chair.

Dr. Beverley Robinson read a paper "On Certain Morbid Alterations of Mucous Membrane; their Influence on Speech; and their apparent Relations with Diseased Nerve-structure."

Dr. Robinson remarked that we were too apt to take for granted, in cases where impairment of voice is a prominent symptom, that the seat of the disease was in the vocal organs. We owe much to Dr. Morrell Mackenzie for a correct pathology and rational treatment of the nervous disorders of the larynx. Vocal asynergia may be due also to changes in the blood, as anaemia, specific poisons, as that of diphtheria, etc. Besides these there are other factors in dysphonia, which have been too imperfectly studied. First among these are the various conditions comprised under the term "catarrh." The mechanism of altered intonation from chronic nasal catarrh was commented on and explained. Tumors in the nasal passages produce the same result, though less frequently. Their presence is readily recognized. Chronic inflammation of the soft palate may give rise to paresis of the muscles and cause imperfect enunciation of certain words. It may not be manifested until after the catarrhal symptoms have disappeared. In chronic granular pharyngitis, popularly known as "clergyman's sore throat," we have at first infiltration, then atrophic tissue degeneration, and at the same time hypertrophy of the pharyngeal follicles. The frequent ulceration of these glands are due to lessened or abolished function of the peripheral nerves, from interstitial neuritis, compression being produced by the proliferated elements of the neurilemma. The tendency of neuritis, and particularly of chronic neuritis to spread by continuity of tissue to other branches of the same nerve-trunk, or plexus, will explain many of the phenomena of granular pharyngitis. A case of chronic naso-pharyngeal catarrh and granular pharyngitis was related as illustrating two facts; (1) the dysphonia which frequently accompanies this condition, though the apparent trouble within the larynx is insufficient to account for imperfect speech. (2) The good results which may follow the treatment of naso-pharyngeal catarrh. This case the writer thought substantiated the opinion, that sometimes the trunks of the pneumogastrics, lying adjacent to the pharyngeal walls, are involved in the inflammatory processes. Dr. Robinson cited experiments by Dr. Weir Mitchell, on animals, which went to prove that many diseases which we call functional are really connected with nerve congestion, no traces of their pathological state being found after death. An affection of the voice, similar to that in chronic pharyngitis, may also depend upon chronic inflammation of the nerve-trunk. There are cases in which, though the influence of the diseased pneumogastric is evident, it is intermittent, happening only by occasional direct irritation of the pharyngeal walls. A few swallows of a bland water, as water, will modify or relieve the symptoms. From this it may be argued that anæmia of nerve-tissue on the one hand, and congestion on the other, may cause definite morbid phenomena.

The Society then proceeded to the discussion of the report of the committee "On Experimental Researches of the Motorial Functions of the Cerebral Convolutions," as ordered at the last meeting.

Dr. J. C. Dalton briefly recapitulated the chief points of the report. The experiments were made on five animals, and were continued for about two hours. The fact that flexion or extension of a limb would nearly constantly follow the application of the electrodes to a particular point, while no such effect would be caused by their application at a point a few millimetres removed, gave a high idea of the certainty of the result. The general agreement in the experiments of the committee and those of Hitzig were remarkable, both as to the points of excitation, and the resulting movements. Application of the electrodes to the dura mater were always followed by contractions on the same side, whilst excitation of the gray matter, with few exceptions (4 out of 169) produced contractions on the opposite side. The movements following excitation of the dura mater were of a shrinking character. In one experiment in which there remained a portion of dura mater at the posterior part of the convolutions, excitation of this fragment caused repeated movements on the same side, while excitation of the nervous matter all about it was followed by no movements.

Dr. James J. Putnam, of Boston, by invitation of the President, made a few remarks, referring briefly to some experiments performed and published some six months since, which were undertaken with a view of testing to what degree, if any, feeble induction currents applied to the cortex cerebri, after the manner of Hitzig and Fevrier, acted on parts lying beneath the surface. The method of procedure was to expose the brain carefully, and, after finding one of the so-called centres, and the minimal strength of current able to produce the muscular contractions on the opposite side of the body, to carry a sharp knife under the part, severing all nervous connections, but leaving the mechanical contact intact. When this had been done the same strength of current failed to call out the muscular movements.

Dr. Putnam mentioned also some experiments of Dr. James, of Harvard University, which he was assisting to make, which should determine whether excitation of the cortex of the cervical lobes, where, according to Meynert and others, the various sensitive fibres of the body find their central termination, would cause a rise of blood pressure, such as is known to follow excitation of peripheral nerves. The changes in the blood-pressure were recorded through a manometer attached to some large artery, upon a revolving cylinder. The results so far had been inconstant. The experiments were still in progress.

Dr. J. J. Mason thought objections might be made to the experiments of Hitzig and Fevrier with respect to the diffusion of electric currents; the galvanometer is fit only to test the diffusion of the galvanic and not of the faradic current.

After some remarks by **Dr. G. M. Beard**, the Society, on motion, adjourned to February 2d.

* * *

Consumption of Apples in Paris.—The Parisians devour 100,000,000 of apples every winter. An eminent French physician thinks that the decrease of dyspepsia and bilious affections in Paris is owing to the increased consumption of this fruit, which, he maintains, is an admirable prophylactic and tonic, as well as a very nourishing and easily-digested article of food.

Correspondence.

SPECTRAL ANALYSIS.

REPLY TO DR. WATERMAN.

To the Editor of the Medical Record.

Sir: Knowing the pressure upon your columns I will endeavor to be as brief as possible, and, to avoid lengthy quotations, will ask the readers of this to refer to the articles by Dr. W. and myself in the Record for October 15th, November 16th, and January 30th, when necessary.

Dr. W., in reply to my criticism concerning spectrum photography, states that he referred to the portion of Kirchoff's map reproduced in Roscoe, and which contains "about 130 sun-lines." Now, in his first paper he refers to Kirchoff's map in this connection, as containing "many hundreds of sun-lines." Is it surprising that I should have supposed he referred to Kirchoff's original map,* which does contain "many hundreds," etc., and not to the fragment of the map referred to in his last communication.

Dr. W., in his reply, re-asserts that some of the lines in Draper's map "are made, evidently, at the *red* and violet part of the spectrum." (I italicize the word red.) The following, I think, will be sufficient evidence of Dr. Waterman's error:—

"New York, *Feb.* 1. 1875.

'Dr. H. G. Piffard,

"Dear Doctor:—In reply to the question in your letter of to-day, 'whether the map of the diffractive spectrum published by you (Dr. Henry Draper) in the *American Journal of Science and Arts* for December, 1873, contains any sun-lines at the *red* end of the spectrum,' I would state that the map does not contain any lines of that part of the spectrum. The spectrum was in that case photographed on bromo-iodized collodion, and only the parts from G to O are represented. To speak more accurately, the lines shown in the map are from wave-length 4,350 ten-millionths of a millimetre to 3,440 ten-millionths of a millimetre.

"A misapprehension may have arisen from the statement I made in a foot-note, that 'since writing the above I have succeeded in photographing the lines of the visible spectrum from *b* downwards, and the picture comprises not only the regions including *E D C B a* and *A*, but also the ultra red rays. These latter photographs have not yet been published.

"Yours truly,
"Henry Draper, M.D."

This would force us to the conclusion that when Dr. Waterman looked at the "map" which Prof. Draper "has given us," he did not know which end of the spectrum it represented, and his persisting in error after I had pointed it out is certainly remarkable.

In paragraph ninth of his reply, Dr. W. *misquotes* me, as reference to the Record of Nov. 16th, will show. I do not, therefore, feel it incumbent to notice the four paragraphs which follow it, and which are in a measure based upon it.

I must, however, be pardoned for entering somewhat at length into the question of the instability of hematocrystalline. I used this word, and continue to use it, in its ordinary sense, that is, to indicate the substance to which the color of circulating blood is due. That Dr. W. used the word in the same significance would appear from the following sentence in his October article, page 531: "The coloring pigment of the blood has been produced in crystalline form and is known as cruorine, hemaglobine, or hematocrystalline." In the same paragraph he further says: "that these crystals are indestructible, preserving their crystalline structure, and other peculiarities, almost forever."

Hematocrystalline, whether existing in unaltered blood or as isolated crystals or in solutions of them, is characterized by the fact that under some circumstances it contains more, and under others less, oxygen, and these two states are evidenced by certain characteristic spectra. Now, if absorption bands other than those peculiar to oxyhematocrystalline and reduced hematocrystalline appear or are in any way produced, it is universally conceded, except perhaps by Dr. Waterman, that the fact of such appearance is due to the existence of some new substance formed at the expense of, and necessitating the destruction of at least a portion of the hematocrystalline. In my criticism I stated that exposure to ordinary atmospheric influences invariably affects it. To this assertion Dr. W. takes exception, and challenges his "critic" to find an authority to support his proposition. Foumouze * says: "L'hematoglobine est characterisée chimiquement par son extreme instabilité."

Preyer † says: "Sehr eigenthümlich sind die Veränderungen des Hemoglobin-spectrums, sowie eine Zersetzung der substanz eintritt. Nach mehrstündigen Stehen der reinen Lösung bei Zimmer temperatur ist die Farbe dunkeler," etc. Further, does Dr. W. forget that in his article in the "Archives" occurs the following sentence? "Hoppe Seyler says: 'It is a substance intermediate between hematocrystalline and hematine, an intermediate product of the *spontaneous transmutation* of hematocrystalline," etc. Plenty of authorities might be quoted to sustain the fact known to every spectroscopist, that the coloring matter of the blood undergoes alteration when exposed to ordinary influences, and this change is evidenced by the occurrence of a new band, called by Hoppe Seyler, its discoverer, Methæmoglobin. Its occurrence in the dried blood adhering to wounds was noticed by Sorby, and Dr Waterman, in his "Archives" article says: "Note the band on the red coincident and even overlapping the C line. It is never visible when fresh blood is examined and *is therefore characteristic of old blood.*" Disputing the opinion of other observers who believe that this band in C is produced by some new substance, Dr. W., on page 458 of "Archives" says: "This band in red is probably due to the action of the various gases which are evolved during the process of drying." This explanation is hardly valid, in view of the fact that this band will appear in tightly-corked solutions, as every one knows.

The next paragraph of Dr. W.'s reply reads as follows: "So also must I maintain what I said in my lecture, that when the outer form of the blood-corpuscle is destroyed by chemical or mechanical means, we may demonstrate blood by producing the crystals!"

I can hardly find fault with Dr. W. for misquoting *me*, as referred to, when shortly after, with admirable impartiality, he misquotes himself. What he did say is as follows:— "We will find that these qualities of *hematocrystalline* are of the greatest importance in medico-legal cases. When the outer form, etc., ... it is yet perfectly practicable to produce the crystals."

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* Unters. ueb. das Sonnenspectrum. Berlin, 1862.

* Les Spectres d'absorption du Sang. p. 23. Paris, 1871.

† Die Blutkrystalle. p. 49. Jena. 1871.

Now, as Dr. Waterman had not, at any previous point in his lecture, made mention of other crystals than those of hematocrystalline, and as hematocrystalline is specifically referred to in the immediate context, it was certainly fair to assume that the words "the crystals" referred to crystals of this particular substance, and not to something else. I think my original criticism upon this point will stand until Dr. Waterman or some one else does produce the crystals referred to under the circumstances indicated.

An incorrect quotation from Preyer, in the next paragraph of Dr. W.'s reply, would convey the idea that Preyer places the substance commonly called hematin among the blood-crystals, which is not a fact, Preyer stating at page 196 of the same book, that it is an amorphous substance. "Bis jetzt wurde es stets nur als Zersetzungsproduct des Bluts farb-stoffs und zwar nur in amorphen Zustande erhalten."

In subsequent paragraphs Dr. Waterman intimates that I denied the production of *any* crystals from old blood. He will nowhere find in my criticism grounds for such intimation, as I have frequently obtained crystals of hemin from old or dried blood, and certainly as much as ten years ago for microscopical examination.

HENRY G. PIFFARD, M.D.

ICTHYOSIS OF THE TONGUE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The report of the meeting of the 21st ultimo of the Academy of Medicine, published in the RECORD, January 30, at which Dr. R. F. Weir read an excellent paper on Icthyosis of the Tongue, I find it stated that Dr. R. W. Taylor joined in the discussion. Owing to severe hoarseness I perhaps was not heard by all present and I should not have spoken, but at the request of the President, as the subject under discussion is somewhat new in this country, at least to its literature, and as all contributions are of some value, I desire to state in your columns what I said there, offering the observations in a suggestive manner. Dr. Weir went very carefully over the clinical features of a large number of cases and from these, as well as from personal observation of several cases, I think we are warranted in stating the fact that there are two distinct morbid processes involved in the lesion which is now following Hulke, called icthyosis of the tongue. In one class there is to be noticed a localized warty and thickened condition of the mucous membrane, it being very evident that the thickening involves all of the dermal structures. In the second variety there is an absence of the warty appearance and a very perceptible thickening of the epithelial layer. In this variety the lesion is of greater extent and may involve the whole dorsum of the tongue, encroaching on its under surface and sometimes also being found on the inner side of the cheeks. The affection also may be limited to patches. In any condition the color of the thickened membrane is of a bluish or pearly white, sometimes of a dirty brownish-white: this latter appearance being usually seen towards the median line. Reasoning by analogy from known facts as to the primary origin of certain morbid processes in certain portions of the skin, it has occurred to me that the lesion of the first form of disease described is in the papillæ primarily and that the other structures are secondarily involved, the whole constituting the warty appearances which are alluded to. Now in the second variety I am of the opinion that the lesion begins in the rete Malpighii, from which it is thought that the epithelial cells are developed. Owing to hyperplasia of these elements, the thickening is produced, which is, as I have said, either general or local. Though the proliferative process in the rete may be of long duration, it will be observed that the other structures of the membrane do not undergo corresponding increase, consequently we have the flat patches. I am inclined to think that in this variety the papillæ are not markedly prone to enlargement. This point was well shown by a case which I observed, and included by Dr. W. in his paper. In this, together with great epithelial thickening, there was much increase and condensation of the sub-mucous connective tissue, yet the papillæ were not prominent. In some cases, however, it will be seen that the papillæ are moderately enlarged, but that they are not of the warty appearance of the first variety. I am inclined to think, therefore, that we include under icthyosis of the tongue two forms of lesion, the one a variety of papelloma, the other a true keratosis. The former is the one most liable to undergo, at late periods, epithelial carcinomatous degeneration, whereas the other has no malignant sequela. As the etiology of these affections is carefully considered by Dr. Weir, in his paper, I leave the subject undiscussed here.

Respectfully,

R. W. TAYLOR, M.D.

125 E. 12TH STREET, Jan. 30. 1875.

METASTASIS OF PAROTITIS TO THE BRAIN.

TO THE EDITOR OF THE NEW YORK MEDICAL RECORD.

SIR:—In THE RECORD for Jan. 9 there is a case, reported by Dr. Kemp, of parotitis, terminating fatally by metastasis to the brain. He observes that it is the only instance reported of which he is cognizant, with the exception of one occurring in the experience of Dr. Dickson, of Charleston.

To add to the literature of this uncommon complication I would mention two cases, which came under my observation while a student of medicine in Washington, D.C. They occurred in the practice of Dr. W. P. Johnston, a leading practitioner of that city. One of the cases was a fellow medical student, aged twenty. The other was his brother, two years younger. The eldest was taken ill first, and in a few days metastasis to the brain occurred, which terminated fatally in four days. About a week later the brother was attacked and succumbed from the same complication.

I am not aware that these cases have ever been placed on record, but they have been related by me at several of the medical societies, while a resident of New York.

E. LEE JONES, M.D.

OAKLAND, CALIFORNIA, January 18, 1875.

Other cases of this disease will be found mentioned in an article by Dr. Radcliffe, published in the *Phila. Medical Times* for Aug. 15, 1874, an extract of which appeared in THE MEDICAL RECORD for 1874, p. 514. —ED.

MEDICAL LEGISLATION IN NEW JERSEY.—On the 30th of January, a bill was introduced in the New Jersey Legislature, providing for the establishment of a Board of Health, to consist of ten persons, to be appointed by the Governor, who shall act without remuneration, shall investigate the causes of all diseases among men and animals, and report annually to the Governor.

Obituary.

EDWARD DELAFIELD, M.D., LL.D.

Dr. Edward Delafield died at his residence in this city, on Saturday the 13th inst., aged eighty-one. He was born in New York, May 17, 1794, and was one of eleven children—seven sons and four daughters, all of whom attained more than average distinction in professional or social life. His father, John Delafield, accounted one of our wealthiest old-time residents, came originally from London, England, and was united in marriage to Miss Ann Hallett, a native of this city.

A pupil in several of the best schools of the day, he eventually graduated from Yale College, New Haven, in 1812, and four years afterwards obtained his medical degree from the College of Physicians and Surgeons, N. Y. A year's sojourn in Europe, during which he visited the London and Parisian hospitals, prepared him for his entrance upon professional life, and the prosecution of a most useful career. Always progressive, he soon conceived the idea of an institution for the exclusive treatment of eye diseases, and in connection with the late Dr. J. Kearney Rodgers, founded the New York Eye Infirmary, which was duly organized April 21, 1821, under the presidency of William Few, Esq.

Soon after the foundation of the infirmary he became a partner of Dr. Borrowe, and was early introduced into a large practice. In 1834 he was appointed one of the attending physicians to the New York Hospital, a position which he held for four years. In 1825 he was appointed Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, and continued to fill the chair with signal ability until the year 1838, when his increasing private practice obliged him reluctantly to resign both his professorship at the college and his position at the hospital. In the year 1842 he became the founder of the Society for the Relief of the Widows and Orphans of Medical Men, of which he was the first President, and to the management of whose affairs he always devoted much of his time. In 1858 he was elected President of the College of Physicians and Surgeons, a position which he held at the time of his death. As President of the college he became a member of the Board of Governors of the Roosevelt Hospital, of which board he was the President. He was Chairman of the Building Committee of the hospital, and devoted himself unsparingly to the details of the building and the organization of the institution. As a teacher Dr. Delafield was quiet, clear, methodical, emphatic in his views, terse, elegant, and distinct in his mode of expressing them. In the esteem of the profession of this city as a man of enlarged views, and benevolent impulses, Dr. Delafield held a distinguished place. He was ever the wise counsellor, the enthusiastic patron of merit, and the public spirited citizen. A popular practitioner among the wealthy classes his success was no less deserving than decided. Many of his old pupils still survive to venerate his memory—and legions of friends, tried and true, will pay the tribute of a tear to his sterling worth.

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Dr. E. S. Dunster is reported to have resigned the Professorship of Obstetrics in the Long Island College Hospital.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from February 1st to February 13th, 1875.

Rose, Geo. S., Assistant Surgeon.—Granted leave of absence for one month. S. O. 24, A. G. O., Feb. 8, 1875.

Medical Items and News.

School Hygiene in Rhode Island.—Last year the State Medical Society of Rhode Island referred to a Committee the subject of "School Hygiene," with instructions to investigate and report thereon. The report has recently been presented to the Society, which, after earnest consideration, unanimously passed the following resolutions:

Resolved, That physical culture is of primary importance in our public schools, and that gymnastic exercise should be made a part of our school system; that the "Kindergarten system" should be engrafted upon our public school system; that the school buildings should not exceed two stories in height; that 300 cubic feet of space and 25 square feet of floor space should be the minimum for each child in a school-room in connection with good ventilation; that proper warmth and pure air are of the first importance, and should always be considered before ornamentation; that scholars should not maintain the same position more than half an hour at a time; that two short sessions, daily, are better than one long one; that no child should be admitted into our public schools as now conducted, under seven years of age; that under twelve years of age, three hours a day, and for twelve years and over, four hours a day, is sufficiently long confinement to mental culture; that study out of school should not usually be permitted; that all incentives to emulation should be used cautiously, especially with girls; that the "half-time system" should be introduced into our public schools.

The Suffolk District Medical Society of Massachusetts, at its last meeting, concluded that it was *expedient* to send delegates to the next meeting of the American Medical Association.

The Insane Department of the Philadelphia Alms House, with accommodations for five hundred inmates, is said to actually contain one thousand and five, and has been declared by the Grand Jury to be a disgrace to the city.

Ophthalmic and Aural Institute.—At the annual election of Trustees of the New York Ophthalmic and Aural Institute, the following were chosen to serve three years: W. T. Blodgett, Dr. Knapp, Jesse Seligman, W. C. Langley, Dr. Linsley, Andrew J. Norwood, and James R. Paddock.

Reconstruction of Surgical Staff of Police Department.—The Board of Police Commissioners has abolished the Board of Examining Surgeons and appointed the same on the general staff. The re-districting of the city was another change made. Each one of the nineteen surgeons is assigned to the police district in which he resides. A committee of three surgeons, appointed in rotation, are to attend on Tuesday of each week to examine applicants for admission into the police force. The President of the Surgical Board reports daily at headquarters. The new appointments of police surgeons are Drs. K. F. Maclennan, W. A. Varian and F. M. Purroy. The salary is fixed at $1,500 per annum, a ridiculously small compensation for the services required.

Alumni Prize.—At a recent meeting of the Council of the Alumni Association of the Bellevue Hospital Med. Col., it was voted that an annual prize be established for the best thesis submitted by an alumnus. The contesting papers are to be in the hands of the President of the Association before January 1st, of each year, and are to be accompanied with a sealed and marked envelope containing the name of the writer; the thesis bearing a mark corresponding to the one on the envelope. The decision of the judges will be declared at the time of the annual graduating exercises of the school.

M. Chevreul, the eminent French chemist, who is now eighty-eight years of age, has been promoted by Marshal MacMahon to the dignity of Grand Cross of the Legion of Honor, in recognition of his services to science.

University Medical College.—The Thirty-Fourth Annual Commencement of the Medical Department, University of the City of New York, was held at Steinway Hall, Tuesday evening, February 16th, at 8 o'clock. After the reading of the Scriptures and prayer, by Chancellor Crosby, the degree of M.D. was conferred upon the graduating class. The Valedictory Address to graduates was delivered by Rev. Wm. M. Taylor, D.D.; also a Valedictory Address by F. W. Spaulding, A.B., of the Graduating Class. The following prizes were then awarded:

The Mott Prizes.—The Gold Medal to Alexander Dallas, N. Y.; the Silver Medal to George A. Balcom, Nova Scotia; the Bronze Medal to Franz Heuel, N. Y. Prof. Budd's Prize, for the best examination in Obstetrics, to Charles S. Webb, of Va.; Prof. Loomis' Prize, for the best examination in Pathology and Practical Medicine, to R. J. Heinmüller, of N. Y.; Prof. Thomson's Prize, for the best examination on Materia Medica and Therapeutics, to Frank L. Smith, of Mass.; Prof. Roosa's Prize, for the best examination on Diseases of the Eye and Ear, to K. Kekimian Sewny, of Turkey: Prof. Arnold's Prize, for the best examination on Physiology, to K. H. Sewny, of Turkey; Prof. Elsberg's Prize, for the best examination in Laryngology and Diseases of the Throat, to Alexander Dallas, of N. Y.; Dr. Pallen's Prize, for the best examination in the Surgical Diseases of Women, to J. E. Paine, of Miss.; Prof. Piffard's Prize, for the best record of his lectures, to Alexander Dallas, N. Y.; the James Bryce Prize of fifty dollars, for the best Thesis on a subject relating to Obstetric Medicine, to Henry Furness, of N. Y. Honorable mention was made of Theses written for the Bryce Prize by James L. Nicholson and G. R. Moloney; Prof. Gillette's Prize, for the best record of lectures on Obstetrics, to Franz Heuel, of N. Y.; Dr. Ranney's Prize, for the best record of his lectures, to Anthony Peck, Jr.

A Case of Intermittent Chyluria.—The following rare case is reported by Œhme. A carriage driver, fifty years of age, was in the habit of passing an intensely white urine every night between the hour of midnight and five or six o'clock in the morning. The urine proved on examination to be chylous, *i.e.*, it contained fat and albumen. The urine passed during the day was perfectly normal. This peculiarity of the night urine was first observed by the patient about the end of the year 1872, and it only disappeared about seven weeks before his death, which occurred early in 1874, from carcinoma of the pylorus, as shown by post-mortem examination. The patient had never lived in the tropics, which was regarded as remarkable, because the disease is usually connected with a longer or shorter stay in those parts.—*Deutch. Arch. f. klin. Med., Berl. klin. Woch.*, 48, 1874.

Report of the Health Officer of the City and County of San Francisco, for the fiscal year, ending June 30, 1874. Henry Gibbons, Jr., M.D., Health Officer.—According to Dr. Gibbons's report, there were 4,013 deaths from all causes, the mortality of the year preceding being 3,641. A large proportion of this increase was due to an epidemic of scarlatina, but for which the mortality would have been smaller than in 1873. The population of San Francisco, according to the estimate made in the City Directory, is about 200,770, which gives a mortality rate of about two per cent. of the population. If, however, the Chinese are excluded from the calculation (their number being estimated at 14,500) the result is somewhat different. While twenty per thousand of the total population died, the rate among the whites was but nineteen, while among the Chinese it reached thirty-two, or more than half as much again. This difference is rendered more remarkable by a comparison of the mortality rates of adult whites and Chinese—a juster base of comparison, since Chinese children are in such small minority. This comparison shows either that the death-rate among Chinese is twice as great as among whites, or the estimates of their numbers are far too low.

Independent Journalism.—Dr. E. S. Gaillard, the editor of the *American Medical Weekly*, in speaking of the rights of independent journalism in America, says: —"So long as medical journals are ruled and controlled by wealthy publishing houses, who use them for mercantile and commercial purposes; for stimulating trade; swelling profits on book sales; who employ editors to use 'the scissors' and play the rôle of proof-reader only; refusing to them the manifest right of independent, though dangerous and pecuniarily unprofitable criticism; so long will such journals be only the repositories of extracted and original medical papers; so long will they fail to do anything beyond this for a profession which needs every support to maintain, in this country, the position which is generally and justly accorded to it elsewhere." We believe in the doctrine, and have on more than one occasion been compelled to contend for its maintenance. Dr. Gaillard has a right to preach as he does because he practises accordingly.

Good Advice to a Dyspeptic.—The *Boston Jour. of Chemistry* says: "A gentleman saw an advertisement that a recipe for the cure of dyspepsia might be had by sending two postage stamps to the advertiser, and the answer was, dig in your garden and let whiskey alone."

Weekly Bulletin of Meetings of Societies.

Monday, Feb. 22.—Medical Society of the County of New York.

Tuesday, Feb. 23.—American Microscopic Society. Yorkville Medical Society.

Wednesday, Feb. 24.—New York Pathological Society.

Thursday, Feb. 25.—New York Medico-Legal Society. Brooklyn Pathological Society. Jersey City Pathological Society.

Friday, Feb. 26.—Medical Library and Journal Association, "Report on Physiology." Dr. Geo. B. Fowler.

Saturday, Feb. 27.—New York Medical and Surgical Society.

Medical Department of Life Insurance.

THE PROFIT TO LIFE INSURANCE COMPANIES IN PROMOTING PUBLIC HEALTH MEASURES.

By J. R. BLACK, M.D.,

NEWARK, OHIO.

The recent meeting of the American Public Health Association in Philadelphia was made up almost exclusively of well-matured, gray-headed medical men. The inquiry very naturally arises, what interest can medical men have in the preservation of health when the largeness of their income depends upon its destruction? Do lawyers in a representative body ever meet to devise means to lessen crime, or do they publish a single journal for the purpose of elucidating the methods by which much litigation may be avoided? All know that they do nothing of the kind, yet in their ranks are many noble lovers of their race, men who do not hesitate to make sacrifice of their interests *pro bono publico.* The difference can only be accounted for by the character of the respective occupations. That of the lawyer has its mainspring in the excesses of human passions and in the waywardness of poorly-balanced minds. The questions chiefly involved are, whether any one has voluntarily forfeited his right to life, liberty or the possession of property. In preventing or removing the causes of unlawful acts, the lawyer cannot feel that he knows more, or that he can do more, than any one else. On the other hand, the occupation of the physician has very little dependence upon mental temperament; it arises from erroneous conceptions in reference to individual responsibility in disease, and of the manner in which mankind should use themselves, or from the changes which they misguidedly effect in their external relations. Moreover, the prevalence of disease involves unspeakable suffering, long-continued misery, privations and premature death. The physician sees and realizes these things more clearly and deeply than any one else, and, besides, to what a great extent knowledge and systematic organized effort would remove them all. The more the physician sees of disease, the longer his experience in contending against it, the more is his heart stirred within him at the wide-prevailing misery and unnecessary destruction of life which springs from the sway of ignorance and of short-sighted folly. His perceptions being clearer and more profoundly excited by a constant insight into the extent and intensity of human misery arising from avoidable diseases than can happen to the followers of any other occupation, he is moved to enlighten his fellow-beings upon the subject, even if it strikes at the very source which renders his professional services a necessity. The evidence to him of the immeasurable benefits which would accrue from a thorough enlightenment of the public mind upon the means through and extent to which health may be preserved is so overwhelming as to produce absolute and enthusiastic conviction. It is from considerations like these that nearly every physician of liberal culture and genuine philanthropy becomes in his riper years an enthusiast—or as some say, almost a monomaniac—on the subject of hygiene.

It is no longer necessary to adduce evidence to prove that the average duration of human life has, within the past two centuries, been greatly extended. The fact is fully established, and well known to all who have given the subject of vital statistics any attention. But the minds of very few are clear as to the precise means through which this extension has been effected. Is there any reason for supposing that this decreased ratio of mortality is the result of spontaneous changes in natural or in supernatural influences? Not a tittle of evidence has been produced, or for that matter can be produced, to prove anything of the kind; and if these be excluded the only remaining source of a change in the influences or relations which affect health and the duration of life is in man himself. That, as a voluntary agent, he has produced very great changes for the better in the modes of using himself as well as in his environment, and to these are due the improvement of his health and longevity, is established as far as the sequence of events is capable of establishing a uniformity of relation. In other words, the relation and sequence of acts and events have clearly shown that to the care of man is entrusted his own physical weal or woe, and whether his life shall be sickly and short, or whether it shall be healthy and prolonged to the greatest natural limit.

The history of hygiene very clearly shows that improvements have been wrought in man's external and internal condition—and in what these improvements mainly consist. In part, they have been of a private, but more largely of a public nature. A larger and better supply of food, cheaper and better clothing, greater care in household ventilation and cleanliness; and, on the whole, more sober and temperate modes of living have contributed not a little to the improved longevity; but in the past, as in the present, the most destructive influences to health and life have arisen from the conditions that attend the dense aggregation of human beings in towns and cities; such as overcrowding, filth, destitution, bad air, impure water, etc. These with some others unite in producing a depravity in the vital fluids exceedingly favorable to the development of disease—even from the natural variations of the elements—but more especially through this dense aggregation to the spread of infectious and contagious diseases, in their nature often extremely destructive to life.

Much has been done during the last four centuries to remove some of the conditions so inimical to life in towns and cities, and with the effect, as in Geneva, of doubling the expectation of life in two centuries, and of diminishing the death-rate in London from 50 in the sixteenth century to 22 in the present.

It remains to inquire if all is done that can be in this direction, and if the average longevity has attained the highest figure which it is reasonable to suppose it capable of. Certainly no one at all versed in sanitary knowledge would give an affirmative answer to the first inquiry; for not only is there the grossest ignorance of the fundamental principles of hygiene commonly displayed in State and Municipal regulations, when the true principle could have been carried out quite as easily and economically, and sometimes more so than the false one—but the progress of sanitary science itself has of late displayed possibilities in extinguishing disease of which our ancestors had no conception, and concerning which the mass of the laity to-day are very little, if at all, informed. Consequently, the second inquiry will be answered by those familiar with the march of knowledge, that we are yet scarcely beyond the threshold of the advance in longevity to which it is possible for our race to attain.

Granting all this to be true, and I feel assured that no sanitarian will differ from me, by what means are further advances to be made, and upon whom should the labor of its achievement chiefly devolve? The efforts of a sanitarian here and there may do something to infuse a little information on these topics among the masses, but his efforts are likely to be desultory, the impressions he makes to be transitory, or it may be altogether set aside by the dictum of some charlatan.

In the promotion of scientific knowledge there is usually developed two distinct classes of laborers; the discoverers, or those who pursue science for its own sake; and the appliers, or those who seek to make the knowledge it confers useful, and so turn it into a source of profit to themselves and of advantage to the public. The history of electricity strikingly displays these distinct pursuits. Volta, Franklin, Arago and Faraday were the leading discoverers, Morse and Wheatstone the leading appliers. Were it not for the latter the progress of science would be practically useless—or it would be like an ingenious piece of mechanism of which no one had any knowledge, serving the purpose of curious speculation, but not of a wise utility.

Another characteristic phase of modern progress is the great extent to which the division of pursuits has been carried, and the high degree of excellence to which they have attained; involving the exclusive application of a lifetime in order to attain the highest order of skill in products or results. The investigations of men who have made the subject of hygiene a specialty have of late added greatly to the facts and deductions pertaining to sanitation; but in our country, save to a very limited extent, it has not reached the rank of an applied science. There are not, as in applied electricity, a class of skilled experts to make public the benefits it is capable of conferring; in fact, in a popular or public sense, in nearly all the States it may be said to be a dead or an unrecognized science. From the very nature of public sanitation, its benefits cannot be made practical except through legal enactments. In all densely populated sections are involved certain physical relations of one person to another, of corporate authorities to the public, and the general and particular states of the environments to which communities give rise. When families are closely aggregated, as in towns and cities, the ignorance or carelessness of one may and often does, not only destroy the health of others, but oftentimes life itself. This may arise from an unnecessary pollution of the air which innocent persons have to respire with noxious or infectious substances, or it may arise from overcrowding in tenement-houses, whereby extreme virulence is given to some contagious disease by which the health of an entire neighborhood is imperilled, and many lives destroyed. Like results may and often do ensue to the public from the ignorance or carelessness of municipal authorities. They may, through the quality of water furnished, cause the production or propagation of a vast amount of disease and death; or they may, through a vicious system of sewers and drainage, become the responsible agents for the wide-spread prevalence of some destructive disease, such as typhoid fever and cholera.

Every town or city gives origin to a peculiar hygienic environment, in which is bound up to a greater or less degree the physical welfare of the inhabitants. There are, in such places, so many sources by which the air may be contaminated, local supplies of water polluted, and the spread of infectious diseases facilitated, that the utmost care of one does not secure immunity from the consequences which ensue from the ignorance or carelessness of others. Hence, in this as in the other examples, it is but carrying out the first law of our nature—that of self-preservation— when we ask that the law render us due protection against the ignorance or folly of others, which we as individuals are unable to secure for ourselves. And, to do this effectually, it is first of all requisite that the science of public health shall be administered by those who are experts in this kind of knowledge, just as the sciences of law and medicine are so administered. In no other way is it possible or practicable to apply sanitary science for the general good, and so put an end by public means to the existing wastefulness of health and life.

In carrying out such an object, it is of course necessary that each State shall organize a department of public health and put a competent officer at its head—assisted by other officers of a like character in all the larger towns and cities. The effect of such a course in improving the chances of life would be immediate and systematic. Blunders of the most serious character by municipal authorities would be prevented by the thousand; the causes of endemics and epidemics would be closely studied and more successfully combatted; the contagium of infectious diseases localized or destroyed; in short, the whole subject of disease prevention would be invested with a new interest and placed on surer grounds of success.

As an illustration of what might be effected in a single case by organized authority in the suppression of disease, let us suppose that each State was provided with a properly empowered Commissioner of Health, who would issue to the health officers of all towns and cities the following instructions: Long-continued and careful observation having conclusively shown that typhoid fever is not a contagious disease—or directly communicable from person to person, but that it spreads and spreads chiefly, if not exclusively, from the exertions of those affected by it (see Budd, Sanderson, Murchison and Liebermeister), it will be the duty of physicians to promptly report every case of such disease to health officers, who will see that all typhoid dejections are immediately disinfected and buried; soiled linen from the same source to be disinfected, and articles like straw which cannot be so treated to be burned. The effect of a general, thorough and systematic enforcement of such instructions would be that typhoid fever would become a very rare disease, and that deaths from it would be reduced to a very small if not a fractional percentage.

It is almost needless to say that in no State, unless quite recently, has anything of this kind been systematically attempted; but, on the contrary, the very means are habitually used which should be, if it were desired to keep the disease alive by a constant succession of fresh victims; *i.e.*, not to disinfect typhoid excretions, and then throw them into vaults or sewers, or upon the open ground—where the contagium can undergo the metamorphosis necessary to infect new victims, and destroy lives by the thousand every year.

The extreme laxity and indifference in reference to the means through which the extension of disease might be limited and many lives saved is well illustrated by the fact that, so far as I am aware, no general or State law prohibits those sick of an acute contagious disease from going where they will; or which defines when those who have recently been so shall be free from all restraint, so far as travelling upon the highways is concerned. I have known persons in the desquamative stage of small-pox and scarlet fever to appear on the streets, to travel on the highways, and occupy beds in our public-houses, and no law to say them nay. Under an enlightened sanitary code this could not be; the public health, and with it life, should be protected quite as much against such a source of insidious danger to life, as against the more open attacks of the assassin.

The efficiency of preventive measures against some of the most deadly epidemic diseases has been repeatedly and conclusively demonstrated. Pettenkofer, Harris, Budd and others have shown that Asiatic cholera when introduced into a city can be stamped out, at least to such an extent as to prevent it assuming the proportions of an epidemic. The protection which thorough hygienic measures are capable of affording against the prevalence of yellow fever has never been more conclusively demonstrated than during the occupation of New Orleans by the Union army for three years in the late war; such a thorough execution of sanitary measures in New Orleans had never before been seen, neither had such an exemption from yellow fever been ever known to occur in the history of that place: and this, too, in the face of the fact that over 100,000 unacclimated soldiers were either stationed or passed through the city during the period named.

These are a few of the grounds upon which sanitarians base their conviction that, when hygiene becomes a publicly recognized and practical science, it will be able to effect a much greater prolongation of life in the future than it has in the past. This prolongation will not of necessity be rapid, but it will be sure; exhibiting a steady rise in the average. But if such a beneficent result is to be speedily inaugurated, something more than the isolated efforts of philanthropic physicians must be brought to bear in the great and good work. The public are suspicious of those who profess to act from motives of pure philanthropy, even although no other is apparent. The masses are very apt to look upon professions of this kind as the movement of a class who must have some selfish end in view. But the interests of physicians happen to be nearly all on the other side—they can have no motive in promoting the public health aside from the love they have for the welfare of their kind—and it may be, the occasional occupancy by one of their number of a position of trust in directing the reformatory movement. So far, they have been almost the sole class who have done anything to promote the public health. and from the causes just assigned, what has been done is very far from what ought to have been; while the gap between private knowledge and public practices is being increased almost every day by the rapid strides which sanitarians are making in the perfecting of this science. In looking around for coadjutors, or for those whose presumed desire to aid a good cause would be ripened into instant resolve by the potent influence of an increase in the profits of their occupation, the mind instantly attaches itself to those engaged in the business of life insurance. This class of all others would have their interests largely advanced by a gradual rise in the average of longevity. Basing their calculations upon a certain average of life to their rates of insurance, if there was a gradual sinking of this average below the standard, the effect would in the long run be exceedingly disastrous to their interests; but, on the other hand, if there was a gradual rise of the average above the standard the effect would be an ever growing prosperity and enlargement of their resources. True, a rectification of the basis upon which life insurance companies determine their rates would become from time to time necessary; yet if the average expectation of life had a constant tendency to grow beyond each new adjustment, as constant a tendency to a progressive augmentation of their profits would necessarily ensue.

The advantages which would accrue to those engaged in life insurance by a steady rise in the expectation of life are so obvious that it is needless to dwell upon the matter. The only points upon which there may be doubt, to those not very familiar with the progress of sanitary science, are whether such an augmentation in the average of life is practical, and if so, by what means can the augmentation be most speedily and securely effected?

I have already shown that the experience of the past has amply demonstrated its practicability. I hazard nothing in saying that there is not a single physician or sanitarian thoroughly versed in the etiology of disease who will not avow that, so far from having reached the limits of the practical in health and longevity, we are just well over the threshold. We are yet as a people scarcely over that dread and superstition of the middle ages which led all to regard a pestilential epidemic as an infliction sent for some form of spiritual wickedness, and hence to be met by sacrifices, votive offerings and intercessions addressed to the gods. It is only about two hundred and fifty years since the first attempt was made at Marseilles to stay the progress of the plague by what was understood as profane but what are now called sanitary measures. In fact, in this department of knowledge the student is able to discover the analogues of the three stages which some writers have portrayed in the growth of civilization and of religion. In civilization the three eras are represented by typical forms of handiwork—as in the age of stone, the age of bronze, and the age of iron; in the growth of religious sentiment, by typical ideas, as in the age of superstition, the age of faith, and the age of reason. Similarly in the history of medicine there are three distinct stages of growth in reference to the conceptions of the causes of disease; the supernatural, or that in which diseases were attributed to the anger of the gods or to the influence of evil spirits; the natural, or that in which nature or her processes were supposed to be at war with man's physical welfare; and third, the human, or that in which man is himself regarded as the responsible agent for the existence of his diseases. The shadow of the first yet overhangs the popular mind, and that of the second over the followers of Hippocrates. A natural outcome of this development of ideas upon the sources of disease was, for the first, interceding or exorcising priests; for the second, the physician; and, for the third, the sanitarian. The notion that a priest may stay the progress of a pestilence by prayers or incantations is now held only by savages, and the opinion yet entertained by some physicians that nature in her operations is more inimical to man's healthy existence than to any other animated being, for he is indisputably the most sickly, is gradually being superseded by that of human responsibility. Why nature should be deemed more at enmity with the human than with any other kind of organism is not very easy to divine; besides, the increase in the average duration of life during the past three hundred years is wholly inexplicable on any other than the hypothesis of personal causation. The processes of nature are precisely what they were three centuries ago, but one of their assumed effects, the physical diseases of man, has undergone a very great change for the better. In that time nearly all the more terrible pestilences have disappeared, and those that remain are very much milder and less frequent in their appearance: so that unless variability can be shown in the course of nature, variability in one of the assumed consequents, disease cannot be attributed to invariability of the antecedent.

That human exemption from disease and an extension of the term of life have a uniform relation to the degree of observance which is rendered to the condi tions of health has been established by a multitude of facts, and to this, and this alone, except in the solitary instance of the practice of vaccination as a guard against small-pox, is due the degree of exemption which is displayed from the one, and the degree of extension which is enjoyed of the other.

The life insurance interest can aid sanitary reform in a very effectual manner by giving substantial support to associations and publications devoted to the promotion of the public health, and by fostering the organization of State and National sanitary departments, in order that this branch of knowledge may be practically and efficiently administered by its experts, and at the same time through the diffusion of information arouse and quicken a popular interest on the subject.

It should be borne in mind that the factors of success are very different in public from what they are in private hygiene. The realization of the benefits of private depend first on individual knowledge of what to do, and second on the will to do it. There are of course very few who possess both requisites, many acting ignorantly in some things and wilfully in others. In public hygiene, under a thorough and enlightened sanitary code, a few men are selected on account of their exceptional fitness in a knowledge of how and what to do, to administer the provisions of the law. The subject of public health is their specialty, they know it more thoroughly than they do any other department of learning, and hence are capable and able to give the public the entire benefit of their exceptional knowledge. The greatest obstacle to the successful application of private hygiene, that of rendering every person equal to an expert, is obviated in the public, and there is therefore no adequate cause to hinder the people of each State from immediately reaping all the advantages to their health which the most advanced public sanitation of the world is capable of affording. Though a few States have recently organized departments of public health, yet the work of reformation has scarcely more than made a beginning, and its promoters are not yet provided with an efficient code by which systematic work can be effected. Here is a wide field in which the life insurance interest can aid in a philanthropic work, and at the same time enhance the prosperity of its organizations.

It is only through such departments that vital statistics can be properly collected, and made to tell the tale in a manner that all can understand of local mismanagement, or of an undue prevalence and mortality from the avoidable causes of disease; to reveal in many instances what those causes are, to exhibit the success of the measures adopted for their removal, and to impress upon local authorities and the public at large a sense of responsibility for the existence of preventible maladies in their midst. Through such organizations only can systematic measures be taken for limiting the spread, and for stamping out the germs of infectious and contagious diseases, and in the event of any pestilential epidemic threatening our shores to take concerted action to prevent its ingress or to limit its ravages.

By the adoption of such measures only can experts in sanitary science be brought to the foreground of action, and furnish to local authorities the most approved methods for the disposal of, and the best conduits for sewage, to advise upon the best means of ventilation for public buildings, to investigate the origin and causes of severe local endemics or epidemics, and advise in reference to the best means of their removal, to inquire into the quality of public water supplies, to guard against the purchase of poisonous commodities such as arsenical paper hangings, toys, etc.; to order chemical or microscopical investigations of suspected unwholesomeness or adulterations in foods or drinks; in a word, to stand as a skilful and alert watchman on the tower to guard and warn against those insidious enemies which steal into our lungs and blood, and destroy both health and life.

THE DISEASES CAUSED

BY THE

INHALATION OF THOSE KINDS OF DUST WHOSE PRESENCE IN THE PULMONARY TISSUE MAY BE DEMONSTRATED.

[Continued from No. 216, Page 663.]

THE DEPOSITION OF METALLIC DUST IN THE LUNGS.

Siderosis Pulmonum.

Chemical tests enable us to detect the presence of metallic dust in the lungs with much greater certainty than is possible with the forms of dust which we have just considered. But, nevertheless, the study of siderosis pulmonum is a comparatively new one, and was only commenced after the existence of a disease depending upon the deposition of coal dust in the pulmonary tissue had been fully established. Moreover, the study of siderosis has thus far been limited almost entirely to the consideration of but a single metal, viz., iron. Excepting one case in a copper miner, published by Greenhow, in every instance of the disease yet reported, the affection was due to the inhalation of some form of iron dust. This circumstance is doubtless the result of the more frequent employment of iron than of the other metals.

What was said under anthracosis with regard to the fineness of the dust, its density and the insufficiency of ventilation, etc., increasing the liability to disease, applies with equal force to siderosis. But, as a rule, there is less dust produced in the manufacture and elaboration of iron than in the various coal works, for the reason that the particles are usually of a greater size and of greater weight, and so fall more readily to the ground. Still the manufacture of iron and its use in the arts are so vast in extent, and employ such a host of laborers throughout the world, that it is quite possible that siderosis may be scarcely less common than the disease produced by the inhalation of coal dust.

The first case of disease due to the inhalation of iron dust was described by Zenker in 1865. The person had been employed to color paper, by rubbing it with the dry peroxide of iron. The lungs were found colored red from inhalation of the dust. After the "red iron lung" had been described it was not long before *black iron lungs* were discovered in cases where the black oxide or the phosphate of iron had been inhaled. Finally, a fourth variety has been described, where the dust consisted of a mixture of iron and sand. In all, there have been recorded eleven cases of siderosis pulmonum depending upon the inhalation of iron dust. Of these, two were observed by Zenker, and the remaining eight by Merkel. Eight of the cases had inhaled the red oxide of iron (seven of them in paper coloring, and one was a glass-grinder), two had inhaled the black oxide in grinding sheet iron, and one the phosphate of iron in mixing colors.

These cases manifested the same catarrhal symptoms as observed in anthracosis. The particles of iron could always be demonstrated in the sputa, by adding dilute hydrochloric acid, and then the ferro cyanide of potassium, when the characteristic Prussian blue appeared. The duration of the disease was exceedingly variable. In one case it lasted but nine months, though this person was not of sound health when the occupation was commenced. In another case the disease lasted for twenty-five years. The average duration after the commencement of severe symptoms—that is, such as would lead the patient to seek medical aid—was about two years. In three of the cases there was an inherited predisposition to phthisis, in three others nothing with regard to this was ascertained, and in five there was no such tendency.

The post-mortem examinations in these cases found the pulmonary tissue thickly studded with the particles of dust, though the mucous membrane of the bronchial tubes was invariably free from them. The tissue of the lung was colored red or black according to the variety of iron dust inhaled (whether the red oxide or the black magnetic), and the tissue was seen where cut to be saturated with a red or black fluid similar to that observed in the miner's lung. In inflated portions of the parenchyma a reticulated meshwork appeared with cicatricial bands inclosing the separate spaces which jut forward upon the surface of the lung. But the most characteristic and invariable feature of this form of pneumokoniosis is an appearance of hard nodules scattered through the pulmonary tissue. They vary in size from a pea to a bean, grate when cut, and on section display a grayish yellow color and a number of little spots or streaks. Many of them have a central lumen the size of a pin's head. Unless this disease has advanced to a fatal termination, but few other changes will be found. But in case the siderosis continues to progress these nodules increase in number and dimensions, and coalesce in the form of large deposits; considerable pleuritic thickenings appear, and finally cavities occur. The cavities usually still contain a few molecules of iron. Caseous deposits may be also found.

Rindfleisch is of the opinion that the nodules above described are tuberculous. But Merkel denies this, and claims that even their gross appearances contradict this view. They consist of dense cicatricial connective tissue, which, on the addition of acetic acid, is seen to be beset with small, mostly spindle-shaped cells containing numerous fine, colorless (apparently fatty) granules, and some of them are quite filled with the particles of iron. He observes that he has seen miliary tubercles in siderotic lungs, but that they never contained the particles of dust observed in the nodules.

These cirrhotic nodules are regarded, in fact, as the most essential feature in the disease, and are the direct result of the irritation induced in the parenchyma of the lungs, in consequence of the presence of the particles of dust. Merkel concurs fully in the opinion of Zenker, who regards these nodules "as formations of purely irritative origin—products of chronic inflammatory processes, which have their seat in all probability in the interstitial connective tissue." "Hence," Merkel observes, "the entire process may be denominated as a lobular interstitial indurating pneumonia, which commences in the lobular bronchioles, whose walls seem to pass into a cicatricial degeneration, while the minute cavities which are found in the centre of many of the nodules probably represent the still remaining lamina."

It is very possible that in some instances deposits of iron-dust take place in the lungs without inducing any serious changes in the parenchyma. In some of those cases where in certain places cirrhosed spots were found, there were also portions which were filled with the dust, but still remained inflated.

Besides the chronic interstitial indurating processes, the ordinary pneumonic and bronchitic diseases may also occur, leading on to phthisis, with the production of cavities, as described under anthracosis.

The possibility of ascertaining the presence of iron-deposits in the lung by means of chemical tests, has been already alluded to. The following are the results of chemical examinations in five of the recorded cases of siderosis pulmonum:

(1.) Zenker's first case contained....	1.45	per cent.	$Fe^2 O^3$	
(2.) A case of Merkel's contained...	0.807	"	"	
(3.) A second case of Merkel's contained.	0.1802	"	"	$= 0.1742\ Fe^3 O^4$.
(4.) A third case of Merkel's contained...........	0.1089	"	"	
(5.) A fifth case of Merkel's contained..	0.13	"	"	
Dried blood contains.......	0.225	"	"	
The dry lung of Case 1...	7.1	"	"	
The dry lung of Case 2...	3.96	"	"	
The dry lung of Case 3...	0.883	"	"	
The dry lung of Case 4...	0.568	"	"	
The dry lung of Case 5...	0.66	"	"	

It should be observed that the cases (4) and (5) were those in which the pulmonary affection did not terminate fatally.

The symptoms of siderosis pulmonum, so far as they have been observed, do not materially differ from those described in connection with the inhalation of coal-dust. The examination of the sputa will naturally yield far more satisfactory results. As a rule, the dyspnœa did not seem to be as great in this form as in anthracosis. The emphysema was not especially marked.

The duration of the disease, after the occupation necessitating the inhalation of the dust was commenced, was protracted. In three of the cases it was not ascertained, and in one instance the patient was diseased when the occupation was begun; in one case it was three years, in one four, in two seven, in one ten, in one twelve, and in one twenty-five. The phthisis which ensued in most of the cases ran its course in the usual manner, entirely uninfluenced in its general character by the dust-deposits in the lungs.

As to therapeutics it is merely suggested that the inhalation, in spray, of certain "alkaline solutions" might possibly dissolve the particles of dust so long as they remained in the alveoli or bronchioles.

Besides the form of siderosis depending upon the inhalation of iron dust, which has just been considered, attention is called, in conclusion, to two other forms of the disease. Mere mention is made of a case of pulmonary disease due to the inhalation of copper dust in a miner, described by Greenhow, which is the only instance of this variety of siderosis on record, and this is very meagrely reported. The other form spoken of is the disease known in England as the "Grinder's Asthma." In this disease the grinders are said to suffer, in some instances, from severe catarrh of the larynx and air-passages, accompanied by violent cough and profuse expectoration, with subsequent emphysema. In other cases destructive changes take place in the lungs, with all the ordinary symptoms of consumption. In the former case the progress of the disease is very slow, in the latter, usually rapid. The sputa, so it is said, frequently contains hard, stony concretions of a black color, and often as large as a small bean. Merkel gives an account of the post-mortem appearances in the lungs in a case of the disease where death was caused by an accident. Hard little nodules of the size of pin-heads were found in the tissue of the lungs, which consisted of deposits of sand and iron embedded in thickened connective tissue.

CONCERNING THE LABORERS WHO INHALE METALLIC DUST.

The laborers who obtain the iron ore from the earth are liable to the same diseases as miners generally, and the iron dust which they inhale does not appear to materially alter the character of these affections.

Blacksmiths, and the workmen employed in making knives, tools, nails, etc., are exposed to pulmonary diseases, mainly on account of the great muscular exertions which they are obliged to make, or from their exposure to intense heat, to extremes of temperature, etc., so that the dust inhaled is usually with them an element of minor importance in the production of disease. The particles of iron which are produced from the lathes and planing machines, are generally of too great size, and too heavy to take the form of dust. The machinists most exposed to the dust of iron, are the file-cutters.

The following table, prepared by Hirt, shows the percentage of various diseases, mortality, etc., in 100 patients belonging to the above class of laborers:

	Phthisis.	Chronic Bronchial Catarrh.	Emphysema.	Pneumonia.	Average duration of life.	Mortality per cent.
Blacksmiths	10.7	9.8	0.5	6.6	55.1	1.8
Nail, knife, saw and tool smiths	12.2	12.2	3.7	3.2	?	2.3
Locksmiths	11.5	9.2	2.6	5.8	49.1	1.4
File-cutters	62.2	17.4	...	12.2	54.0	1.6

In the manufacture of sheet-iron it is only the men whose occupation consists in removing the incrustations of black oxide left after the hammering that are exposed to any considerable dust. The operation is performed by grinding the surface of the iron with large pieces of sand-stone dry, and the dust produced is extremely dense. One case of phthisis siderotica was observed by Merkel among these workmen.

A common source of the disease is found in the occupation of preparing the paper in which the gold-beaters lay the gold-leaf. The paper is prepared by rubbing the red peroxide of iron into it dry, during which operation the air is loaded with dust and the occupation has an exceedingly pernicious effect upon the health of those engaged in it. The same is probably true of the occupation of polishing glass by means of the red oxide, though facts with regard to this are lacking.

According to Merkel's experience cases of the disease have often resulted from the employment of mixing colors which contain phosphate of iron. The instances were observed in an establishment where railroad cars were manufactured, the colors being required for the lacquer.

Another class of laborers especially exposed to siderosis are the iron and steel grinders. They, however, inhale a mixture of iron dust and sand. English statistics show the occupation to be an exceedingly dangerous one. In Sheffield 69 per cent. of the laborers suffer from grinder's asthma, and 69 per cent. die under 40 years of age. The oldest was but 65. In Derbyshire the needle-grinders upon an average attain an age of only 33¾ years, and the fork, scissors, pen, and caseknife grinders 35 years. The razor grinders occasionally live to from 40 to 50 years of age, while the scythe, saw, and file grinders, who do the grinding wet, attain a considerably greater age. In Aix-la-Chapelle, where better sanitary measures prevail, with better ventilation, etc., Hirt found a much more favorable state of things. Among 200 needle grinders he found the mortality 2.6 per cent. a year, and the mean duration of life 50 years.

With regard to forms of siderosis pulmonum depending upon the deposition in the lungs of other kinds of metallic dust than those of iron, too few observations have been made to arrive at any positive conclusions. Next to iron the metal most likely to cause pneumokoniosis in its workers is copper, together with its alloys, brass and bronze. There are not many operations upon these metals however, where much dust is produced. It is mainly the pin-makers and workers in bronze that are exposed to dust. Especial mention is made of the operation of preparing the powdered metal for bronzing. The alloy is pounded with iron pestles in iron mortars, and the men engaged in this occupation stand in a perfect cloud of dust, looking as if they were gilded.

The following table by Hirt shows the percentage of different pulmonary diseases, in 100 patients, from this class of artisans:

	Tuberculosis.	Chronic Bronchial Catarrh.	Emphysema.	Pneumonia.	Duration of Life, in years.	Mortality.
Coppersmiths	9.4	17.0	2.7	8.7	48.6	1.899
Watchmakers	36.5	19.4	2.4	4.8	55.9	2.78
Model Carvers	36.9	39.4	...	10.5	?	?
Engravers	36.3	15.7	5.2	10.5	51.6	?
Tinmen	14.1	18.4	1.5	4.0	47.0	2.78
Brassfounders	31.2	9.3	..	15.9	60.4	1.594

DEPOSITION OF STONE DUST IN THE LUNGS.

Chalicosis Pulmonum.

The fact is pretty generally recognized that those who are in the habit of breathing an atmosphere that is impregnated with stone-dust are very prone to suffer from pulmonary diseases, and particularly phthisis. Peacock (in 1860) was the first to demonstrate the fact that particles of stone may become embedded in the lungs, and since him Kussmaul and Meinel have made more elaborate investigations in this direction. Meinel found 30.7 per cent. sand in the lungs of a glass-maker; 22.7 per cent. in those of a stone-cutter; and 18.2 per cent. in the lungs of a railroad station-master who was stationed in an extremely sandy region. He also found in lungs preserved as a specimen of "healed tuberculosis" in the Erlanger Pathological Institute, 45.64 per cent. of silicious earth and sand.

Chalicosis does not differ in its general course materially from those forms of pneumokoniosis which have been already described. It is said that the sputa now and then contain stony concretions. The anatomical features also resemble, in the main, those observed in siderosis. The nodules that occur in the lungs, however, are harder, and grate more under the knife when cut than in siderotic lungs. Moreover, they do not attain as large a size as in the iron-lung, nor become coalescent. The same bronchitic and peribronchitic processes occur together with the caseous deposits, cavities, and the final eruption of tubercles. Greenhow described similar changes in "the potter's lung," in which silicious earth and clay were found. Ross described four cases of potter's lung, in the *Dublin Quarterly Journal of Medical Science*, February, 1871.

The microscopic examination of these lungs reveals the little black crystalline molecules which are characterized by sharp angles and edges, that strongly refract the light. They are best observed by cutting out one of the nodules, and treating it with boiling hydrochloric acid, and then examining the residue with the microscope.

In speaking of the *laborers who work in stone dust*, the following three varieties of the dust are mentioned as those most likely to cause disease when inhaled, viz., the dust from the precious stones, especially diamond dust; second, the dust of flinty earths and clay; and third, calcareous dust.

Diamond cutters, as a rule, live only from thirty-three to thirty-five years of age. It is, however, not only the diamond dust inhaled which has a pernicious effect upon their health, but they are generally exposed, while at work, to the coal-gas from the little fires they use in soldering the stones to copper rods. The cutters and grinders of other precious stones have equally unhealthful occupations.

The dust developed from the quartz used in the manufacture of glass has an extremely pernicious effect upon the health of the workmen engaged in pounding up the mineral. The great hardness of the particles, and the sharpness of their edges and points, render this kind of dust especially dangerous to the lungs. Most of the workmen die early of phthisis. The grinders of the glass are not exposed to as dense a dust. Hirt found that the average duration of life amongst the glass-grinders in Silesia, was forty-two and a half years, and that when the occupation was begun as early as at the age of fifteen scarcely any lived to thirty.

The manufacture of millstones is an almost equally dangerous occupation to the workmen employed in it. Peacock states that of the workmen engaged in a London factory 40 per cent. die of tuberculosis, and that of forty-one workmen, of whom twenty-three were not over twenty years old when the occupation was commenced, the average age at death was 24.1 years. Merkel observes that, according to his experience, this class of laborers are much addicted to excessive drinking.

As for operators engaged in porcelain factories, Hirt states that from 40 to 42 per cent. of their diseases are acute or chronic pulmonary affections. The average duration of life amongst the turners was 42.5 years. The potters show about the same proneness to lung diseases, viz., 37.6 per cent. of all diseases, of which 14.7 per cent. were phthisis. Statistics with regard to the workers in sand, the stone breakers, etc., are, as a rule, unfavorable. Lime dust may be sometimes inhaled sufficiently to cause disease, as in masons and carpenters, especially when engaged in tearing down buildings. Mention is made of the habit which lithographers sometimes have of blowing away the dust produced in engraving the stone. Where many are at work in a room, the dust is considerable. Phthisis is very common among these people.

DEPOSITION OF OTHER FORMS OF DUST IN THE LUNGS.

The deposition of tobacco-dust in the lungs was claimed to have been observed by Zenker, in two instances, in persons who had been employed in a tobacco factory. The lungs were atrophied, and showed, here and there, in the parenchyma and bronchial glands "peculiar brown spots, which were evidently due to the penetration of tobacco-dust into the pulmonary tissues." The coloring was most marked in parts that were most atrophied. Merkel regards this form of disease as not yet fully established, and calls attention to the bad hygienic surroundings which commonly obtain among the operatives in tobacco factories, and to their customary irregular mode of life. The dust in these factories generally causes considerable irritation to the air passages at first; but the operatives soon become accustomed to it and cease to notice it. Phthisis and other pulmonary complaints are, however, very common among them. Hirt states that their average duration of life is 58.3 years, and the rate of mortality 1.312 per centum.

The deposition of cotton-dust in the lungs (pneumonie cottonneuse) has been described as a separate disease by Cœtsem. He states that the affection commences among the operatives in cotton factories between the thirteenth and thirtieth years of life. He distinguishes a primary stage of simple catarrh, an inflammatory stage with asthmatic dyspnœa, and a distressing cough with the expectoration of white, frothy, gelatinous sputa, which look like beaten white of egg, and under the microscope show little flocculent bodies which are identical with the particles of dust floating in the atmosphere of the factory rooms. The further progress of the disease resembles consumption. Its duration is from sixteen to twenty-two months. In the parenchyma of the lungs be found, post-mortem, "a grayish-white, pulpy softening, and a hard induration of a pearl-gray color that cuts with difficulty, and on section appears homogeneous and shows a few laminæ of bronchi and blood-vessels."

Merkel, from analogy with the other pneumokonioses, admits the probability of the disease, but remarks that further investigations are required. The dust developed in cotton factories is often considerable, and is apt to cause catarrhs in the operatives. Many are found to leave the occupation for this reason. The people employed in the Belgian cotton factories, live to from 47 to 50 years of age, upon an average. The rate of mortality amongst them is 35 per centum.

In conclusion, a few facts are adduced, which indicate that some of the employments in woollen factories are also rendered injurious to health on account of the dust.

Miscellaneous.

INCREASE IN THE DURATION OF LIFE.—In ancient Rome, during the period between the years 200 and 300 A. D., the average duration of life among the upper classes was thirty years. In the present century, among the same classes of people it amounts to fifty years. In the sixteenth century the mean duration of life in Geneva was 21.21 years, between 1814 and 1833 it was 40.68 years, and at the present time as many people live to seventy years of age as three hundred years ago lived to the age of forty-three. In the year 1693 the British government borrowed money, the amounts borrowed to be paid in annuities, on the basis of the mean duration of life at that time. The State Treasury made thereby a good bargain, and all parties to the transaction were satisfied. Ninety-seven years later Pitt established another tontine or annuity company based on the presumption that the mortality would remain the same as 100 years before. But in this instance it transpired that the government had made a bad bargain, since while in the first tontine 10,000 persons of either sex died under the age of twenty-eight, 100 years later only 5772 males and 6416 females died under this age. From these facts it appears that life under certain favorable influences has gained in many and probably in all its forms and manifestations, both in vigor and duration. To still further promote this tendency, it is only necessary that those conditions under which the attainment of the desired end is possible, be made to accord with the fundamental natural laws.—*Deutsche Versicherungs-Zeitung.*

Mortality of Races.—The *Deutsche Zeitung* of New Orleans contains the following interesting notes on the mortality of the two races there, taken from statistics of Dr. Chille. The mortality of the colored population has always been decidedly in excess of that of the white population, excepting during yellow-fever epidemics, this disease chiefly affecting the whites. There is no doubt that this greater mortality existed before the war in New Orleans and other cities—certainly in Charleston, Washington, Baltimore and New York. In comparing the five years of freedom from 1866–70 with the four years of slavery from 1856–60 we find the aggregate death-rate has remained about the same. But when a comparison is drawn between the white and blacks in these periods, it appears that the mortality of the blacks has greatly increased. Thus, during the four years 1856–60 (1858, a yellow-fever year, being excluded) the colored death-rate was about 44 to the thousand, and the white 39 per thousand; while in the four years 1866–70 (excluding the yellow-fever, 1867) the colored death-rate amounted to 43 and the white to only 33 per thousand. What are the causes to which we shall ascribe this larger mortality of the colored race? The official sanitary records afford scarcely any data bearing upon this point, and therefore, are of no assistance in determining the question. Some of these causes doubtless lie in the greater ignorance and improvidence of this race, and in the fact that its mortality from small-pox, cholera, consumption, still-births and diseases of children is greater. The future of this race will depend upon the degree of its natural increase by propagation. The only reports of the Health Board which throw any light upon this matter are those for the years 1872 and 1873, since these alone give the number of deaths among children under two years of age with the two races separated. Regarding the population in 1872–3 as the same as that in 1870, we find that in the year 1872, in every thousand children, 154 white children died under 2 years of age to 298 colored, and in the year 1873, 181 white and 335 colored per thousand died under the same age. This proves conclusively, that in New Orleans the mortality among the colored children as compared with the mortality of white children is enormous.—*Deutsche Versicherungs-Zeitung.*

The Prevention of Consumption.—At the general meeting of the Lower Rhein Public Health Association, in Düsseldorf, last November, Professor Rühle delivered an address on the question: "What can public hygiene do to resist the progress of consumption?" After some preliminary remarks regarding the scope of public hygiene, and its duty implied therein of contending against this worst foe of the public health, consumption, the speaker urged the great importance of a knowledge of the causes leading to this devastating disease, for the sake of discovering by this means a way to its prevention. Now, inasmuch as we may consider that there is, in very many cases, a predisposition to phthisis, which predisposition is known as scrofula, or a general feebleness of the constitution, that is, as a lack of the power of resistance in the organism to morbid influences, we may conclude that everything which tends to remove this predisposition will, to a certain extent, prevent consumption. Again, the lungs are almost always the primary, and often the sole seat of those morbid changes by which phthisis is characterized; and so we should seek for a prime cause of disease in pernicious influences that exist in the atmosphere with which the lungs are in continual contact and communication. All experience has taught that where these deleterious influences are increased, as is the case where many people live together in large cities, in factories, barracks, prisons, or among miners, grinders, stonecutters, etc., there is a like increase in consumption. But not only are the lungs first affected usually, but the disease begins invariably in their apices. The reason for this lies in the unfavorable situation of these parts, in the fact that in many persons the apices of the lungs are scarcely ever thoroughly inflated. This is especially apt to be the case in a sedentary mode of life, particularly in certain occupations, as in tailors, shoemakers, etc. It is also often due to maldevelopment of the chest, to weakness of those muscles whose office it is to expand the upper portions of the throat where the apices of the lungs are situated. The above-mentioned predisposition—scrofula and a feeble constitution, as well as the defective development of the chest, of which we have just spoken, are often transmitted as family traits, and, so to this extent, consumption is inheritable. In view of these various predisposing causes, though the above enumeration by no means exhausts the list, many tasks devolve upon public hygiene. With regard to the abatement of scrofula, a matter of prime importance is the provision of dry, well ventilated apartments for the people. The inmates of dwellings commit many errors in the manner in which they avail themselves of the apartments they occupy, in chosing the small rooms and those secluded from the sunlight, for the children, and for sleeping apartments, instead of using the largest and sunniest rooms for this purpose. More attention, also, should be paid to the food. Milk from badly fed or unhealthy cows may alone be the cause of disease, and, in fact, may, by itself, engender consumption. The potatoes are often of an inferior variety, grown in a poor soil and insufficiently ripe, furnishing an unhealthful kind of nutriment to the poorer classes by whom the potato is used very largely. The bread, too, often has injurious properties, on account of the flour being bad, or because insufficiently baked, or eaten while too moist and fresh. The habit of sitting in constrained positions peculiar to a sedentary life, and the insufficient inflation of the lungs demands special attention. The overcrowding of school-classes, and having too many consecutive hours of instruction, will eventually have to be remedied. Why should the school-hour be an hour of sixty minutes? Why may not ten to fifteen minutes be devoted to open-air exercises and to airing the school-room? Daily exercises in an open-air gymnasium, respiratory manœuvres and the like might easily be introduced if the effort were only made, and the matter properly supervised. So soon as the necessities of the case are once generally recognized there will be no lacking of support to carry into effect the needed improvements.—*Deutsche Versicherungs-Zeitung.*

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Typographical Errors.—We have noticed that two or three typographical errors had crept into Dr. Wey's article, published in the Jan. 16th number of The Record. At the bottom of the first column on page 49, the word "assisted" has been used instead of "asserted;" in the tenth line from the top of the second column of the same page the word "act" should be "art;" and, finally, on page 50, "muscular tumor" should read "muscular tremor." We trust that our readers understood, by the context, the meaning of the author.

Original Communications.

ACTIVE AND PASSIVE MOVEMENTS IN THE TREATMENT OF PARALYSIS.

By WM. R. FISHER, M.D.,

HOBOKEN, N. J.

IN our country the use of movements and manipulations in the treatment of disease is, unfortunately, chiefly in the hands of "rubbers," "manual magnetizers," and the like, and very few physicians know anything about the methods of using them, or the effects which follow their application; for the savor of quackery is so strong about the whole subject that the majority prefer to have nothing whatever to do with it. This is to be deplored; and in the hope of doing something to correct the mistaken impressions which exist in regard to the employment of these time-honored, but now much abused, means of treatment, this paper on their application to the relief and cure of palsies has been prepared.

Without going back to antiquity, there is no lack of good authority to support the claims of these agents to a position in our list of remedies for the class of diseases to which the paper refers. Robert Bently Todd says, in reference to hemiplegia with relaxed muscles: "I know nothing which more decidedly benefits the paralyzed limbs than a regular system of exercise; active, when the patient is capable of it, passive, if otherwise." [*] Doctor C. B. Radcliffe, in referring to the treatment of paraplegia from myelitis, says: "The efficacy of frictions and champooings appear to be indisputable. The efficacy of proper movements can only be doubted by those who are unacquainted with the results arrived at by the "movement cure," and by systematic movements of one kind or another, with or without the help of mechanical apparatus." [†] Doctor S. Weir Mitchell says: "The results which I have seen obtained by practised rubbers were certainly to be gained by no other equally rapid treatment." [‡] J. Hughes Bennet, [§] Inman, [‖] Vogel, [¶] Geo. B. Wood, [**] West, [††] Bouchut, [‡‡] and many others, have testified to the efficacy of movements, and recommended, more or less emphatically, their employment in the treatment of paralysis. Still they are seldom used, and a therapeutic means which has received such indorsements is left by the medical profession in the hands of quacks and charlatans.

The indications which are to be met with in treating a paralysis are threefold:

First, to maintain the nutrition of the paralyzed part, in order to prevent interstitial degeneration, atrophy and the deformities which are peculiar to paralysis.

Second, to modify the abnormal processes at the seat of the paralyzing lesion, so that repair may be there instituted; and

Third, to promote the restoration of the interrupted relation between the nerve-centre and its peripheral distribution, for the re-establishment of function.

Active and passive movements are capable of responding, under suitable circumstances, to each of these requirements with more or less efficacy; while, in regard to the third division—the renewal of voluntary control over muscular action—the superiority of systematic active exercises over every other plan of treatment does not admit of question.

The first indication may be reached by various modifications of mechanical force, applied to the paralyzed region either by the hands of an experienced manipulator, or by some labor-saving machine. It is unnecessary to enter here upon a detailed account of the various manipulations which may be practised for this purpose; let it suffice to say that the patient is for the most part entirely *passive* during the administration of such mechanical processes as rubbing, movements of the joints, kneading of the muscles, vibrations of the limbs—in short, all the manipulations which the French group under the term massage. From their proper use various results may be obtained, in accordance with the especial object which is sought. The growth of the tissues of a paralyzed limb, from the skin to the bone itself, may be most advantageously modified, the temperature being increased, the circulation of the blood quickened, and the interstitial changes of nutrition rendered more complete. Hence the general comfort of the patient is decidedly promoted by these manipulations. Again, by means of passive movements the large joints, which are prone to suffer secondarily in the course of paralyses which involve the extremities, can usually be maintained in a healthful condition. Such of the so-called paralytic deformities as depend on passive shortening of muscles, together with stiffering of the fibrous tissues about the joints, which annoy and embarrass the patient, as well as often prove a cause of actual suffering, can be prevented, or, if they have been allowed to become established, can be removed. So, too, that form of inflammation of the shoulder-joint which Charcot and Hitzig have described [*] as sometimes arising in the course of hemiplegia, from the continuous pressure of the joint-surfaces, finds its only treatment, for prophylaxis as well as cure, in such passive exercises as secure the normal motility of the articulation. But perhaps the most important results from the use of passive movements for their local effects are seen in the prevention of muscular degeneration. The nutrition of muscle is promoted in great measure by *active* exercises, which are to be hereafter spoken of; but these passive movements also bear an important part in preventing that muscular atrophy which is the result of want of use, and which arises in some forms of palsy in essentially the same manner as it is occasioned by a compulsory loss of function from anchylosis of a joint, or during the confinement which the treatment of a fracture requires. The thermometer often shows an increase of one or two degrees Fah. after a thorough *massage* of a limb, and, if motility exists at all, the muscular tone is always temporarily increased. The electro-muscular contractility is often markedly improved by the same means. When voluntary control of the muscles has been lost, it is essential to prevent this atrophy by supplying an artificial passive exercise, either by means of electricity or by manipulations, to the end that when a restoration is effected the volitional effort may not expend itself upon degenerated muscular fibre. When electricity cannot be employed with safety—for instance, in the early stage of a paralysis from central lesion—the movements and manipulations offer themselves as worthy substitutes; and even when galvanization or faradization is not contra-indicated by the condition of the patient, not only may they be used with advantage in combination with electricity, but often indeed without detriment in its stead. That passive movements are quite competent to arrest this atrophy from disuse, would seem to have been established by Reid's experiments, which showed that if the nerves distributed to two limbs be divided and the muscles of one limb be left at perfect rest, whilst the other is passively flexed and extended several times in the course of each day, the former set will undergo atrophy, and the latter will retain their normal size, weight, and structure.

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[*] Clinical Lectures on Paralysis and Diseases of the Nervous System, p. 216 London, 1856.

[†] Article on Myelitis, in Reynolds' System of Medicine, p. 644. Philadelphia, 1872.

[‡] Injuries of Nerves, p. 249. Philadelphia, 1872.

[§] Clinical Lectures, p. 378. New York, 1860.

[‖] Restoration of Health, pp. 100, 101. London, 1872.

[¶] Diseases of Children, p. 394. New York, 1872.

[**] Practice of Medicine, Vol. II., p. 834. Philadelphia, 1855.

[††] Diseases of Infancy and Childhood, pp. 205, 206. Philadelphia, 1866.

[‡‡] Diseases of Children, p. 182. London, 1855.

[*] Virchow's Arch., XLVIII., p. 345, 1869.

It is scarcely necessary to add that it is not to be expected that a means which is chiefly local in its action can influence to the degree which these experiments exhibited, that muscular atrophy and degeneration which is an *essential* part of some varieties of palsy.

The second, or remote objects—for the promotion of reparative processes at the seat of the paralyzing lesion—may be attained in two ways by the use of passive movements. In the first place, mechanical force, which is applied at the periphery, may be transferred as a remedial agent to the central nervous system, just as electricity when applied at the periphery may influence reparative changes in nerve-centres which have undergone serious lesion. We know that peripheral applications of either agent do exert an influence upon nerve-centres, for clinical observation teaches us that good effects follow a careful and proper use of them, and that dangerous signs of central irritation are excited by an injudicious use of them.

Under the latter circumstances electricity and the movements give rise to symptoms which are closely allied: headache, flushed face, excited circulation, and general discomfort. While there can be no doubt that, for therapeutic purposes in this special direction, electricity is by far the more powerful in its action, there are in favor of the substitution of movements in its place, at least in all doubtful instances, the facts that the general disturbance which an excessive use of the mechanical processes may give rise to, is not likely to be as severe as when electricity has been improperly applied; and that the bad effects from the former pass off more quickly and with much less subsequent exhaustion.

The second method of producing a remote effect is by a general application of passive movements to the whole body. In a palsy which interferes with or prevents locomotion, a considerable part of the consequent disordered digestion, general feebleness, and other symptoms of constitutional depression, may depend upon the absence of the usual and necessary bodily exercise; and it then becomes desirable to add to the local treatment a general artificial exercise, to promote healthful nutrition, and to keep up a good appetite and digestion. The kneadings and other manipulations should therefore be applied to the whole body, for when properly used they add most unquestionably in this indirect aud secondary way to the completeness of the recovery. As thus employed they really become part of the hygienic treatment, and should be classed with cleanliness, fresh air, and diet.

But it is in accomplishing the third object which is to be aimed at in the treatment of palsy, the re-establishment of voluntary control over the muscles, that the use of movements is pre-eminently advantageous. The local use of passive exercises to affect the nutrition of paralyzed parts of the body may be supplanted very often by electricity, and, indeed, in some instances, especially where direct stimulation of nerve-tissue is required, the employment of electricity may be much more useful than they. Their secondary and remote effects upon cerebral disease or lesion of the nervous system are to be classed, as we have seen, among those which many other stimulant, tonic, or nutritive agents are capable of producing. But when we seek to repair the damage to function which a limb has suffered from paralysis, to renew volitional effort and to re-establish muscular obedience, there is nothing which can be substituted for systematic active exercises. Of course, the applicability of special gymnastics to any particular case of paralysis is determined by the nature of the lesion upon which it depends. In a paralysis arising from the pressure of an exostosis, an aneurism, or other tumor, or from progressing disease in the brain or spinal cord, they could be of little value. They are chiefly appropriate to the treatment of those palsies in which shock or want of use enter as prominent factors in the production of muscular inability, where functional disturbance predominates over organic change. Let a case of cerebral hemiplegia serve in illustration of the manner in which they are to be used. There exists in the early history of this variety of paralysis a period during which the nutrition of the paralyzed limb is almost at a stand-still, and then the passive manipulations and movements may be used, as we have already seen, to add to the comfort of the patient, and also to promote the renewal of active nutrition. Until this period of inaction is at an end, nothing further is to be aimed at. But with the return of activity in the nutritive processes, it becomes the physician's office to endeavor to restore to his patient his voluntary control over his useless limbs. Something more is to be aimed at now than the mere stimulation of muscular growth by passive manipulation and electricity. He is to seek to bring together the injured brain and the powerless muscles, and to restore their relation as nearly as may be by practising his patient in directing his will-power to the ordering of certain movements and his muscles to the execution of them. Beginning, then, at as early a period as is consistent with success (let us suppose this to be before the paralytic has recovered any voluntary control), his first step is to put his patient in an easy position, either lying or partly lying, with every part of the body completely supported, and with every muscle completely at rest. This preliminary is necessary, so that the whole effort which is to be made may exert itself upon the set of muscles which may be selected to receive it, and that no portion need be expended in muscular action to sustain the body or any of its members. The physician then takes a paralyzed arm or leg in his hands and directs his patient to concentrate his will upon the execution of a certain movement, and at the same time he slowly and steadily moves the limb in the direction indicated. This is repeated a few times with intervals of rest, and the treatment ends for that occasion.

"The effort, though gentle, should be concentrated, well-sustained, and determined, in order to accomplish which, the will of the operator should always operate through the patient. It is not enough that the patient be told what he is to do, and then be left to do it as well as he can—for inability to do this is the essence of his disease—but, in everything he does, he must act only under a command. A kind but determined command is followed by an increased desire, which is the most favorable condition for an effectual volition, because a volition thus begun commences at its maximum power, and continues full and well-directed to the end. Although the operator himself actually makes the movement which is perceptible to the eye, it is more to secure the *morale* of the patient—for he sees it move while he is trying to move it; he cannot tell how much of the movement belonged to himself, but feels and hopes that he helped some; and, has his effort was slight, perhaps he could do more." *

After a while, be it more or less, as the peculiar conditions of the case may determine, the physician will observe that a muscular effort on the part of the patient is perceptible to him, as the volitional impulse towards the execution of the different movements is put forth. Though the patient's consciousness cannot yet appreciate its existence, the physician recognizes, through his muscular sense, that in executing these movements of the limbs for his patient there is not the same amount of muscular effort necessary on his part that was demanded at the beginning, and that the difference, slight though it may be, is supplemented by a returning power in the palsied muscles. At length a subjective recognition comes, and voluntary motion is an established fact. Thus we see that these regulated exercises serve to shorten the period of helplessness, by bringing to a patient's mind a realizing sense of the existence of power in his palsied limbs, which assuredly could not so quickly be manifested if such repeated trials were not made.

"Suppose a force of two pounds of muscular contraction to be capable of raising the arm; if we began with a force of only one ounce, it might be increased to thirty-one ounces, and still the arm remain unraised; but the most hopeful change has been going on in the nervous and muscular tissues, while yet there is no palpable result." †

In this one sentence is contained the whole argument for the special use of movements which is under consideration.

If, now, the patient be left to himself, he will undoubtedly continue to improve, and to a certain extent regain control of his limbs; but that control will not be as thorough and complete as it would have been made by a continuation of the educational exercises. We should seek through their agency to reduce the ultimate impairment in function to that amount which is inevitably dependent upon organic change, by eliminating those defects in movement which habit is prone to set up. At first the active exercises should be of the simplest nature and of short duration, for their object is the education of volitional effort, and not the development of muscle. The patient must not be tired at the time when they are commenced, nor when they are finished. Far better is it, for the object in view, for him to make one strong and thorough attempt to execute a movement, than to make a dozen feeble ones; for it is easy, through a succession of tedious and imperfect efforts, to acquire bad habits of movement which will impress themselves by repetition upon the centres of motion, and stand in the way of subsequent improvement in function. When the restoration of power becomes more pronounced, and simple movements, such as extension and flexion, can be executed without much effort, it is of advantage to combine the unaffected limbs with the paralyzed in the exercises; for when the ganglia put forth the motor impulse to both limbs at once, the weaker muscles act to a certain degree automatically, and the perfect method of their opposites is unconsciously acquired. Gradually the more complicated manœuvres are introduced into practice, until at last the patient reaches that point of perfection in movement to which the nature of his disease permits him to attain.

The use of movements—active and passive—in the treatment of paralysis is more closely allied to electrization by the galvanic and faradic currents than to any other therapeutic agent which is in use. Some of their points of similarity and of difference have already been pointed out; but, in concluding this paper, it may be well to look at them once more in regard to the practical effects of each. We have seen that, in exciting a local nutritive influence upon atrophied muscles, or upon muscles which are liable to undergo atrophy, their effects are closely similar, and that they may often be used alternately, or one instead of the other. It is not unlikely, too, that the claims of both should be equally divided in reference to the remote constitutional effect from applications at the periphery. As a means for diagnosticating the seat of lesion, and of acting directly in a therapeutic way upon the cerebral nervous system, or its distribution, the galvanic and faradic currents certainly possess powers to which a treatment by movements alone cannot pretend. But, on the other hand, when in the early stage of some of the palsies electricity cannot be safely employed, the movements offer themselves as valuable substitutes to promote nutrition locally and generally, and to add materially to the comfort of the patient. The joint-affections which have been mentioned as arising in the course of paralyses of the extremities, find a prophylaxis as well as cure in passive exercises; electricity is of much less value for such purposes. And for the restoration of perverted function—the ultimate aim of our treatment—the active exercises, when properly practised, enable the physician to carry forward his treatment far beyond the point where electricity alone ceases to be useful. It is probable that hereafter the use of the galvanic current, in combination with systematic rhythmical exercises, will be regarded as an important advance in the treatment of paralysis. The recent experiments of Doctor G. V. Poore,* show that in certain conditions the passage of a mild galvanic current through muscles, or the nerves which supply them, increases the susceptibility of those muscles to the stimulus of the will, *while the current is passing*, and that ultimately their voluntary power is increased. Duchenne observes that the excitability of motor nerves or muscles by the induced (faradic) current is in many instances determined by the stimulus of the will. In other words, that while the induced current is unable to excite contraction, motility may return in response to volitional effort, and that subsequently the muscles may respond to the electricity. In such instances, the educational treatment by special exercises would be far superior to the use of that form of electricity alone, although the combination of galvanization with the exercises would very likely be an improvement upon either.

A CENTENARIAN.—The *Lancet* of Jan. 30th, gives the account of a post-mortem examination by Sir G. Duncan Gibb, M.D., of an old woman, known as the Tring or Hertfordshire centenarian, who, by well authenticated records, was, at the time of her death, within three months of one hundred and eleven years old.

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* Taylor, Theory and Practice of the Movement Cure, pp. 130–131.—Philadelphia, 1864.

† Taylor, op. cit., p. 122.

* Practitioner for January, 1873, pp. 37 et seq.

DIFFUSED GANGRENE OF THE LUNG.

(A PAPER READ BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF ALBANY, N. Y.)

By F. C. CURTIS, M.D.,

ALBANY, N. Y.

JOHN M., æt. 22, fishmonger; American, of Irish descent.

The patient is of tubercular antecedents, his father having died of phthisis. He has heretofore been pretty healthy, though subject to cough on slight exposure. Has led a rather wild, irregular life, but not so as to materially undermine his constitution. Has been intemperate.

July 27th, 1874, he came to the office complaining of the usual effects of hard drinking, having been on a "bout" for a fortnight. He was not heard from again until Aug. 14th, his wife then reporting that he was having a severe diarrhœa, and that he had not been well since last seen. He had continued to drink more or less until recently, and during the time had received a pretty severe pounding, though no definite injury had been inflicted. Aug. 22d, a week later, I was requested to see him, and found him at a neighbor's house, sitting by the window. He was quite weak, but too restless to stay at home and in bed. His diarrhœa was very profuse, the stools containing considerable blood. He also had nausea and vomiting. A disagreeable fecal odor was noticed, which had been remarked for two weeks back, attributed to unclean habits. His countenance was rather dusky, respiration hurried, and he had a dry cough. The diarrhœa only was prescribed for.

Next day he was again found away from home, though he had to be assisted in getting there, the weakness much increasing. Diarrhœa was checked, but lung symptoms were more marked. On examination of the lungs, there was found complete consolidation posteriorly on the right side, there being clear tubular breathing over the lower half, most marked at the inferior angle of the scapula.

Next morning I found him completely prostrated. There were mucous rales over the lower two-thirds of the right lung, and evidence of commencing softening. He had no pain. Respiration was hurried, being about 36; but he did not complain of dyspnœa. Cough was moderate, and he expectorated a thin tenacious sputa, of a dark, prune-juice color, extremely fetid. His breath also had the same odor, especially on coughing. This odor struck me as feculent, with a nauseating, sweetish character. It filled the room, and would turn any but a stout stomach. Tilden's preparation of bromo-chloralum was used as a disinfectant very profusely, and it may be noted that it answered the purpose well, making respiration, except in the immediate vicinity of the patient, quite endurable.

I supposed that the case was one of gangrene of the lung coming on in the course of pneumonia. Active stimulation was adopted, with hardly a shadow of hope that it would avail anything. He rallied during the day from his prostration under the sharp spurring of his vital forces, but next morning was found in a low, typhoid condition, with sordes on the teeth, lips, tongue, an immobile expression, and a mild delirium, from which he could be roused. His respiration continued about 36, with little variation throughout, the pulse being 110, until toward the last when it rose to 140. The temperature unfortunately was not taken. He roused up to expectorate, the amount of sputa being considerable. The symptoms presented during the four days that he lived after this collapse varied but little from these given. Stimulants were perseveringly used, keeping up his strength a little. He died on the morning of August 28th.

The autopsy was made twenty-four hours after death.

Thorax.—Both lungs were remarkably distended, filling their cavities fully, and being extremely firm and incompressible, so as to hardly allow the passage of the hand between them and the chest wall. There were feeble adhesions only of the right pleura throughout, hardly more than a sticking together of the surfaces. There was no effusion on either side. Turning the right lung out and laying it open posteriorly, there was found a large cavity, having a centre about the central portion of the lung, from which branching cavities went off above and below, and at points coming very near the surface. It had a capacity of about 24 ounces. There was contained in it a thick, dark-colored fluid of exceedingly offensive smell. Bands of tissue ran across the cavity, having not yet been destroyed. It was lined with lung tissue of a dark-grayish color, friable, and breaking readily between the fingers. This extended several lines, variable in different places, back from the cavity, merging gradually into the condition of the rest of the lung, which was deeply congested, solidified—just as is found in the stage of red hepatization of pneumonia. No obstruction of the bronchial tubes was found; neither was there evidence of pulmonary embolus. The left lung was healthy. There was no trace of tubercular deposit in either lung. The bronchial glands were enlarged, and contained a dark, pigmentary matter. The heart was quite healthy.

The liver was large and fatty. Both kidneys were large, of dark color, the capsules adherent, and the Malpighian tufts partly destroyed. Other organs of the body were not found specially diseased.

Here we have an undoubted case of diffused gangrene of the lung, a disease we rarely meet with. This infrequency is shown by the analyses of autopsies given by Flint: of 1,069 post-mortem examinations at Vienna there were only 5 cases of pulmonary gangrene (and it is so general to make these examinations in the Hospital there that such cases could hardly escape being looked into); among 3,437 made at Prague there were 75; while Fuller says that during ten years there were but 19 cases in the St. George's Hospital, London. Trousseau states that he has seen but two cases, aside from those of traumatic origin. The circumscribed as well as the diffused forms of gangrene are included in the above, and cases in which so extensive a destruction of lung tissue takes place, as in the case given, must be extremely rare.

The causes of gangrene of the lung and the pathological conditions giving rise to it are somewhat obscure. Gangrene, in general, is induced by cutting off the blood supply of a part. Aside from this mechanical method of production, an element of causation may exist in impairment of the condition of the blood.

One of the direct causes of gangrene of the lung is embolism of the pulmonary artery. Flint doubts this, since the lung depends for nutrition on the bronchial arteries, and he has, too, met with a case in which the left primary division of the pulmonary artery was entirely occluded by a calcareous mass of tuberculous origin without the occurrence of gangrene. Possibly this is to be accounted for by its slow formation, for Trousseau gives a case where an embolus of the pulmonary artery occurred in the course of phlegmasia dolens which was followed directly by symptoms of gangrene, and at the autopsy that part of the lung supplied by the artery was found sphacelated. He adds that Virchow recognizes this cause of gangrene, although this vessel is not concerned in the nutrition of the organ.

Sphacelation of the lung has been known to occur in the course of pneumonia. This statement is doubted by Dr. Alonzo Clark, and was by Laennec, but I give it on the authority of Flint, Niemeyer and Da Costa. Flint gives two cases, only one proving fatal. Trousseau states that he has never seen a case, but adds that it has been observed. Niemeyer says that during the culminating period of pneumonia this condition may arise, absolute arrest both of circulation and nutrition being caused by the inflammatory stasis.

Gangrene of the lung has arisen in the course of exhaustive diseases, either general or affecting other organs. Among these may be cited diabetes, small-pox and typhoid. In the same category may be placed the occurrence of diffuse gangrene in the lungs of drunkards, which is mentioned as liable to take place by Niemeyer. The reason for this he says is difficult to explain, but it seems probable that it is from the debility arising from deficient nourishment. It has been observed in persons reduced by a lack of suitable nourishment alone, and its frequent occurrence in lunatics may perhaps be accounted for by this also. Possibly the first step in the tissue change is an inflammatory disturbance of the lung, and the reason for the selection of these organs may be sought for at the same time that we inquire why pneumonia is so apt to set in as intercurrent to capital operations.

Finally, among the causes of this disease may be mentioned traumatic causes, including the passage of foreign bodies into the lungs. Articles of food passing into the bronchial tubes decompose, probably irritate and inflame, and at length set up a necrosis of the surrounding tissues.

In the case which I have narrated, I supposed gangrene to have followed pure pneumonia. The post-mortem, however, showed the pneumonia, which actually existed throughout the whole lung, to be only in the stage of red hepatization, while a large portion of the lung was already destroyed and sloughed away. This could not have taken place in the short space of time that the pneumonia had existed. More than this, the fetor, so marked during the last few days, had been noticeable before, though attributed to uncleanly habits. Search was made at the autopsy for evidence of a foreign body in the air passages, and for obstruction of the arteries, and their not being found does not of itself preclude the possibility of this cause. But there was nothing in the history of the case, so far as obtained, that pointed to the occurrence of either of these accidents. I conjecture that the case is to be classed as one of those occurring from debility brought on by protracted intoxication. It would seem that circumscribed gangrene began some time before he was seen, affecting only a very limited portion of lung tissue, that it existed as circumscribed gangrene for nearly or quite two weeks, during which time the peculiar fetor was noted by his friends although he was about all the time, that it then became diffused and extended rapidly, destroying the life of a considerable portion of the lung, which finally broke up and sloughed away during the last few days that he was under observation. Five days before he died it was clearly consolidated, and in the course of twenty-four hours was softened and being thrown off, accompanied with profound prostration. We might, by a little stretch of the meaning of the word, call it a case of *idiopathic* gangrene.

The diagnostic value of the symptoms in this case demand a word. Those presented were the peculiar odor of the breath, particularly pungent in coughing, the odor and appearance of the sputa, the great prostration and the general symptoms pointing to disease of the lung. Trousseau says: "When I review the recollections of my personal experience, when I consult what has been written on this disease, I am struck with the inadequacy of the signs by which to determine the existence of gangrene of the lung."

The leading symptom is the characteristic odor, prior to the appearance of which diagnosis is impossible. It is, in fact, the only symptom of decisive import. Other conditions produce fetor of the breath and sputa. Among those mentioned are pleurisy, attended with perforation of the lung; tuberculosis, in which cavities having formed, sloughing of lung tissue in them takes place; fetid bronchitis, produced either by a superficial slough of the bronchial mucous membrane or by the secretion assuming a fetor apart from this. Three distinct kinds of pulmonary fetor have been described—that of ozena, of feces, and of gangrene: the first applying to fetid bronchitis and to bronchorrhœa, the second to pleurisy, in rare instances with fetid effusion, the third to gangrene. But in the case of gangrene which I have given, the odor seemed distinctly fecal, and I should hardly think any reliance was to placed on this sub-division. It was suggested by one physician, who saw my patient with me, the possibility of it being a case of rapid tuberculosis. While this symptom of fetor of breath and sputa is thus liable to misinterpretation, yet, taken with the history and course of the disease, it leaves little doubt as to the nature of the case. Prior to the softening and expectoration with formation of cavity, I do not think a diagnosis can be made. This course of the disease, however, is not at all uniform. The onset varies with the cause giving rise to it. There is, too, a wide difference in the impression made upon the system by circumscribed and diffused gangrene. Gangrene may be said usually to set in as a case of pneumonia. Then comes the prostration from blood-poisoning. This may not be marked for weeks, the patient being about and showing little evidence of his serious malady. If the gangrene be diffuse, however, profound prostration comes on at the beginning—the respiration is rapid, the sloughing tissue is expectorated or swallowed, physical signs of a single cavity at the central or lower portion of one lung are found, and accompanying all these is the horrible, sickening smell—an assemblage of symptoms which cannot leave a doubt concerning the character of the disease or its certain termination. Doubt can only arise when the gangrene is quite circumscribed. It is a fortunate fact that we have but rarely to deal with a case of diffused gangrene of the lung, but the possibility of the occurrence of these rare diseases at any time makes the extended consideration of the few cases that do come under observation, valuable.

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Homœopathy in the St. Louis Hospitals.—An effort is being made to introduce homœopathy into the hospitals of St. Louis, and the editor of the *Missouri Clinical Record* says: "Once admit the homœopaths, and in a short time, every other 'ism' and 'pathy' under the sun will claim the same privileges, and as justly too; and it will not be long before the people will judge of these things in their true light, and common sense will prove the beneficent handmaid of science.

"Let our Boards of Health admit to practice in our hospitals the eclectics, homœopaths, and others who may desire it; but let it at the same time be required by law that there be kept the strictest accounts of the diagnosis, treatment, and all other matters appertaining to the patients under their care."

THE PROMPT TREATMENT OF ACUTE DISEASES OF THE THROAT.

By F. A BURRALL, M.D.,

NEW YORK.

Some time since I was called to attend a middle-aged, married, American lady, who had been suddenly taken ill with nausea, sore throat, and fever. No eruption accompanied the attack, and convalescence ensued in about five days. Ten days later the youngest child was seized with scarlatina simplex. On the day succeeding the first of the youngest child's illness (Tuesday), the eldest, who had suffered from scarlatina at a previous period, was attacked, however, with sore throat and fever, unattended by any eruption. The nurse had severe tonsillitis, which commenced on Wednesday, and on the following Friday the third child showed febrile symptoms, which were duly followed by a scarlatinal eruption. During the sickness of these patients it was ascertained that a child in an adjoining house had been attacked with severe scarlatina two weeks before the indisposition of the lady to whom I was summoned. There is every reason to believe that the same poison was illustrated in distinct forms by each of the above attacks. Hence the importance with which an apparently simple sore throat may be invested, and it is at least wise to regard every acute attack of what is generally termed "sore throat" as a "questionable shape" which may envelop the contagion of scarlatina.

Similar considerations apply to diphtheria. It is not always easy to decide at once whether to apply so grave a term to a few white flecks upon a tonsil, which may be but alterations in the follicular exudation. Yet that variety of diphtheria must not be forgotten which remains for a few days under the form of a comparatively insignificant ailment, and quite suddenly develops into a fatal disease.

In his valuable work on "Diseases of the Throat," Dr. Solis Cohen refers to a malady which he terms "membranous sore throat," and which is thus described:

"There is a variety of sore throat, almost always more or less met with at all seasons, characterized by the exudation of a fibrinous material which coagulates into a pellicle or false membrane. These cases are very often mistaken for diphtheria, and account for much of the success claimed for the various treatments of that disease. For apart from the immediate danger sometimes attending the mechanical obstruction in cases implicating the larynx—cases, however, which are very rare—the tendency of this affection is to recovery; while a similar tendency in diphtheria is, as we shall see, doubtful. This form of sore throat is often met with during the prevalence of diphtheria, and *may sometimes be a starting-point of that disease.* Discrimination is therefore of paramount importance."

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"The membranous deposit is often found upon the ulcerated surfaces of mucous membrane, and also upon cutaneous ulcers, and the broken cuticle of blistered skin. It presents a *similarity to the deposit found upon similar surfaces in diphtheria, but does not constitute diphtheria, there being an entire absence of the toxic symptoms of that disease.*"

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"It has already been stated that when diphtheria is prevalent, common membranous sore throat may invite an attack of diphtheria; and that it is often met with during the prevalence of diphtheria. If, therefore, there be any doubt as to its nature—and doubt may readily arise under such circumstances—the safest plan for the practitioner would be to treat it as if it were diphtheria."

There can be no question that the advice here given to treat any doubtful case of this kind as diphtheria is the "safest plan." Such a case came under my care, which I was disposed to regard as membranous sore throat, after reading Dr. Cohen's description of that disease. It was treated, nevertheless, as diphtheritic, and proved to be diphtheria. Evidently an error in diagnosis might easily occur; in fact, were it not for the distinguished names which endorse this title one would readily be led to question whether this disease were not essentially diphtheritic, so strong are the points of resemblance. If we regard diphtheria as primarily a local disorder which afterwards becomes constitutional by penetration and absorption of a local poison, how difficult must it be to decide that the milder cases of membranous sore throat are not cases of diphtheria in which no absorption has taken place. As is well known, some constitutions seem almost proof against what are known in general terms as contagious diseases.

Admitting, then, that sore throat, even of a mild character, should not be neglected, the question of treatment requires consideration. What method shall be adopted? There is strong reason to believe that scarlatina and diphtheria are connected essentially or indirectly with the development of germs, and the local remedies used should therefore be taken from the class of antiseptics. Such remedies have been used even long before the germ theory was in any favor, apparently because they were found of use. Germ life is a kind of cell life, and in order for cell life to continue, investigations have shown that the fluids which run into and out of the cell must be sufficiently fluid to permit of easy transit. This circulation is impeded or annulled if these fluids are coagulated. There are also agents, such as chromic acid, carbolic acid, alcohol, chlorine, iodine, sulphur, and permanganate of potash which probably by some different chemical action destroy fungoid life. Carbolic acid is said to produce this result, arresting albuminous metamorphosis. A moment's thought will show that some of those agents, which have been esteemed both as remedial in throat diseases and also as antiseptics, consist of antiseptics in combination with astringents. Of these are persulphate of iron, sulphate of copper, carbolate of zinc. Bare experience, unattended by any theoretical knowledge, seems to have led to the adoption of several such remedies.

These thoughts with regard to the action of certain medicines in sore throat are introduced because it is sometimes interesting to trace out the causes of things, and in the present instance to bring forward a reason why remedies have found favor in acute diseases of the throat. The main point, however, which it is proposed to present in this article are, that *no acute sore throat should be neglected, however mild, and that antiseptics should form a part of the local treatment.* Such attacks should not be neglected, both because they may be *essentially* grave diseases, and also because, if treated very early, early resolution often follows.

Dr. T. Lander Brunton, who succeeded the lamented Anstie in the editorship of *The Practitioner*, has recently been elected Assistant Physician to St. Bartholomew's Hospital.

Progress of Medical Science.

Tincture of Arnica a Dangerous Application.—Dr. James C. White has an article in the *Boston Med. and Surg. Journal*, for January 21st, 1875, on the poisonous action of tincture of arnica on the skin. He relates three cases, where its use as a lotion for bruises occasioned severe attacks of acute eczema. Dr. White is inclined to believe that such results are more common than is generally known. The use of arnica as a household remedy is exceedingly extensive, and the reason that the poisonous effects often produced upon the skin do not lead to its disuse, is that the true nature of these effects are seldom recognized, but are attributed to the original injury for which the arnica is applied. Whatever beneficial results may follow the use of that tincture Dr. White would ascribe wholly to the alcohol. Hebra has long ago entered a protest against the use of this supposed remedy, and its irritant properties are described by Tilbury Fox. Dr. White thinks the profession should cease to accord to so useless and dangerous a drug a confidence to which it is in no way entitled.

Psoriasis treated by the Internal Use of Carbolic Acid.—Moritz Kohn, of Vienna, has recently published in the *Arch. f. Derm. u. Syph.*, the record of numerous cases of various forms of skin diseases and syphilis, treated by the internal administration of carbolic acid. Cases of psoriasis, pityriasis rubra, prurigo, pruritus cutaneus, and certain non-ulcerative forms of syphilis, improved greatly or were wholly relieved after the use of this remedy, during a period of from four to seven weeks. It was administered in the form of pills made up with liquorice, each pill containing one grain of carbolic acid. At first, from six to nine pills were given daily, and later from twelve to twenty. He noticed that even after a small amount was taken it could be detected in the urine, though it was never the dark thick urine, smelling of tar, which has been observed after applications of carbolic acid to open wounds. In illustration of this method, he mentions two cases of psoriasis occurring in his own practice. One was a man twenty-six years of age, who took from four to sixteen grains daily, and at the end of five weeks there was entire disappearance of the disease. The only adjuvant in the treatment was cod-liver oil, which was used as an inunction in the later stages. After the lapse of three months there had been no recurrence of the disease. The other patient was a girl, thirteen years of age, with whom the same treatment was pursued, but without the cod-liver oil, and she recovered entirely of the disease at the end of four weeks. She never took more than four grains a day. At the expiration of four and a half months there had been no relapse.—*Allg. Med. Central-Ztg.*, No. 103, 1874.

An Aged Primipara.—Dr. Würzburger, of Bochum, was called in to see a stout countrywoman, who complained of severe pains in the back and belly. A very brief examination convinced the doctor that the woman was in labor, the parts of the fœtus being easily made out. When the woman was informed of her condition she protested against its possibility, saying that she had been married for over twenty years, was now past forty-eight years of age and had never been pregnant. She attributed the absence of menstruation for the past nine months to her change of life, which she believed had come. She was surprised when four hours later a well-developed female child was safely delivered, forceps being required on account of the inefficiency of the expulsive efforts. The mother made a good recovery, although there was not the slightest effort on the part of nature to establish lactation. Menstruation, however, returned regularly. A curious feature of the case was the complete change which soon took place in the constitution and appearance of the woman. From being stout, erect and vigorous, she became thin, wrinkled, bent and gray. Some interest may also attach to such a case in a medico-legal point of view, from the fact of the woman being completely unconscious of her condition up to the moment of her confinement.—*Allg. Med. Central-Ztg.*, No. 103, 1874.

Saccharine Urine after Poisoning by Nitro-benzol.—Two cases of poisoning by nitro-benzol, with suicidal intent, were observed at the clinic of Prof. Frerichs, and Dr. Ewald has reported them in the *Berl. Klin. Woch.*, No. 1, 1875. They both occurred in young women aged twenty-six and eighteen years respectively; the former swallowed about 60 grains, the latter rather over 150. Both patients recovered. Dr. Ewald's attention was particularly directed to the examination of the urine for sugar in these cases, because he had found it in the urine of rabbits and dogs poisoned by nitro-benzol. In the urine of the first and lighter of the two cases, there was no reduction of the oxide of copper to the sub-oxide, by Trommer's test, but the doctor was led to infer from the large amount of sulphate of copper held in solution by the caustic potash that either sugar, or some substance closely allied to it, might be present in small amount. In the urine of the second and severer case, which was obtained by the catheter six hours after the poison was taken, he satisfied himself, however, of the presence of sugar. The clinical history and treatment of these cases presented no features of special interest, and did not differ materially from the cases that have been published by others. The characteristic features of poisoning by nitro-benzol, in regard to which there is great uniformity among authors, are the following:

1. A period of latency, seldom exceeding half an hour, which ends with the access of headache, and sometimes vomiting.
2. A striking cyanosis of the skin and mucous membranes, not due to disease of the organs of respiration and circulation.
3. A deep stupor, in which the patient is wholly unconscious of external impressions.
4. A strong smell like bitter almonds. There is also, so far as investigated, a brownish coloration of the blood. The following points of difference should be noted between the action of nitro-benzol and the true oil of bitter almonds, containing hydrocyanic acid, with which it is often confounded, both by name and by its smell. This latter acts with lightning-like rapidity, and produces pallor of the surface, while the former, as stated, has its period of latency, its cyanosis, and moreover the peculiar coloration of the blood, and sugar in the urine. As to treatment, the author urges the necessity of promptly and thoroughly emptying and washing out the stomach, and recommends as a ready method of doing this, the use of a piece of the ordinary flexible gas tubing, which he says can easily be made to answer every purpose when the end is smoothed off, eyes cut at one side and the instrument properly oiled. The list of cases referred to by the author is inaccurate.

Review of the Modern Methods of Treating Stricture.—At a meeting of the Medical Society of London, held Dec. 21, 1874, Mr. Teevan read a paper on the above subject. He stated that the methods of treating stricture might be ranged under the following heads, and that he had tried each method excepting electrolysis. 1. The expectant plan, which confined the patient to bed, trusting that the symptoms would disappear by rest, warmth and purging. The method was not in favor on account of the sacrifice it entailed on the patient, and ought to be reserved for cases of impassable stricture, to enable the surgeon to introduce an instrument. It often failed completely. 2. Continuous dilatation. Most useful where gradual dilatation had failed, or where it was desirable to get the patient well in a few days. In some cases the treatment could not be carried out on account of the irritation it set up. 3. Gradual dilatation. This treatment was most in favor with the majority of surgeons, for it allowed patients to pursue their avocations without interruption, and it was devoid of the slightest risk. There were certain drawbacks to the treatment, chiefly caused by the use of an imperfect gauge and instruments. If the French gauge and soft French instruments were employed, failures would be rare. 4. Caustics. Most useful in certain cases of impassable stricture, to open up the mouth of the stricture, and enable the surgeon to introduce an instrument. The treatment did not deserve the wholesale condemnation passed upon it. 5. Electrolysis. The facts were too few to enable a correct judgment to be formed. The treatment was still *sub judice*. It deserved a fair trial, however. 6. The plan of sliding one instrument over another. Useful in cases where there was a false passage, or where the difficulty of treating the case arose not so much from the tightness of the stricture as from the tortuosity of the urethra. 7. Forcible dilatation, which included the so-called "immediate treatment," or "dilatation forcée," more properly termed "divulsion" by Voillemier and the American surgeons. This treatment was rapidly falling into disuse. In France the operation had been almost entirely abandoned, and in Great Britain and America surgeons were constantly relinquishing the practice. In Germany the operation had never been popular. The objections to the treatment were that it was, so far as could be ascertained, the most fatal of all operations for stricture, and that the relapses were speedy and aggravated. In London alone a large number of deaths had occurred after the operation. He always had under his care a number of patients whose strictures had been split up by other surgeons, and whose relapses had often taken place in spite of the utmost care and attention. 8. The various methods of urethrotomy. In France internal urethrotomy was the stock operation. It was in harmony, he said, with all the teachings of surgical pathology and experience, and was making rapid strides in all parts of the world. In Great Britain and America it was supplanting forcible dilatation. There was but little risk attached to the operation, and its results seemed more permanent than those following other operations. He looked upon "subcutaneous urethrotomy" as the operation of the future, and preferred it in all cases where it was applicable. External urethrotomy ought to be reserved for cases of horny or resilient stricture, complicated with perineal abscess or fistula. The principles of treating stricture had been correctly summed up, upwards of thirty years ago, by M. Auguste Mercier, and might, he said, be thus briefly translated: "Dilate where you can, cut where you cannot." A lengthy discussion followed, all those taking part in it supporting Mr. Teevan in his condemnation of forcible dilatation. It is said, however, that among those absent from the meeting were Mr. Holt and Mr. Hill, the well-known advocates of opposite views.—*The Lancet*, Jan. 9, 1875.

Salicylic Acid.—Prof. E. N. Horsford has a letter from Professor Schwartz, of the University of Gratz, giving some account of an important communication made at the recent German Scientific Congress at Breslau, an extract from which he publishes in *The Boston Medical and Surgical Journal.*

In the chemical section the most important thing was the exhibition of the salicylic acid now produced in large quantities by the process of Kolbe. It is made from C_{12}, H_6 O_2 and Na O, HO (phenol-sodium), into which is conducted dry carbonic acid at a temperature of 170° C. There is formed salicylate of soda, which, decomposed by hydrochloric acid, precipitates the salicylic acid. This is the best disinfecting agent known. It is without odor, tasteless, not poisonous, and, even in small quantities, absolutely preventing putrefaction. Meat immersed in a solution of salicylic acid, in an open vessel, remained perfectly sweet for weeks. It prevents milk from coagulation. Fruits do not become mouldy, and wounds heal without festering. In the case of a patient whose leg was amputated, the wound was sprinkled with a little salicylic acid, and bandaged for six days without being touched; it was then found to be healed over without the slightest formation of pus.

It is easy to see what enormous significance attaches to this discovery. The transportation of meat, the preservation of bodies; of anatomical and zoological preparations of fish, mollusca, milk, beer, wine, etc., will be greatly promoted. It must be remembered that salicylic acid is perhaps twice as effective as carbolic acid, and that it is wanting in the poisonous and unpleasant qualities which characterize the carbolic acid. Dr. Fr. v. Hayden has erected, at the suggestion of Prof. Kolbe, a manufactory of salicylic acid at Dresden, where one may now obtain the acid at ten thalers per kilogramme (about $3.50 per pound).* Professor Horsford says: "It may be well to add that salicylic acid is a constituent of the oil of wintergreen (the checkerberry, *Gaultheria procumbens* of New England). Its production from carbolic acid (phenol) on a commercial scale, and so from "dead oil," a familiar product of the distillation of coal-tar, is one of the triumphs of modern chemistry. It promises so much in practical surgery, in securing healing by first intention, in the prevention of pyæmia, and in the arrest of the growth of all forms of microscopic animal and vegetable life that characterize fermentation and putrefaction, that opportunity for experiment cannot be too soon open for all. The article can be imported in small quantities through the mail, and in larger quantities through any of the leading druggists.

Substitute for Linseed-Meal for Poultices.—The Paris correspondent of the *British Medical Journal* writes that at a recent meeting of the Academy, M. Le Fort read his report on a paper by Dr. Lelièvre on a substitute for the ordinary linseed-meal poultice, which M. Le Fort was charged to investigate. Dr. Lelièvre proposed the "Fucus crispus," or carragheen lichen, as it possesses the following advantages: it may be cut into thin plates of the size required and, when steeped in hot water, it softens and swells in a few minutes. This new poultice has been tried by MM. Demarquay, Gosselin, and Verneuil in their respective hospitals, and they have pronounced it to be far superior to the linseed poultice; it keeps moist for more than sixteen or eighteen hours; it does not slip; is inodorous; does not readily ferment, nor does it soil the linen.

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* Its present price is about three dollars per ounce.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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OUR MEDICAL CHARITY SYSTEM.

THERE are many questions having reference to the management of our medical charities which invite discussion. Especially is this the case at a time when there are so many of the sick and deserving poor who have a claim upon us. The trouble is not that we are deficient in the number of institutions which offer the requisite aid to the needy, but in the faulty system by which they are managed. In fact, they fall so far short of their avowed intention, that the majority of such as are entitled to their benefits are the least apt to receive them.

One trouble is that there is not enough care taken on the part of those who dispense the charity, to see that it is directed in the proper channels. For this the profession is in no small degree responsible. There is with some physicians such a great desire to improve the advantages which a large experience in the treatment of disease affords that almost every consideration is sacrificed to it.

So far from taking ordinary pains to discriminate between the deserving applicant and the pretender, efforts are made in a contrary direction by soliciting patronage, and thus directly encouraging improvidence and pauperism. For instance, when a new hospital or dispensary is started, it is not an uncommon thing to see placards upon the fences announcing the fact, and a general invitation to the public to avail themselves of the privileges of being treated gratis. Mention of course is made that the appeal is only to such as are unable to pay, but practically speaking, it is a bid for a full house, irrespective of the character and means of those who may fill it. There are so many of these enterprises which are managed in the interest of the attending physicians, who wish, by such a connection, to advertise themselves in the practice of a particular speciality, that it would be contrary to their interests to be too particular in their discrimination of the respective claims of their patrons. Very frequently the claims for annual appropriations of the Legislature to such institutions, rests entirely upon its apparent use to the community, as proved by the number of persons who have sought to be relieved through its instrumentality. In view of this fact, there is a temptation to swell the list of patients, which is hardly to be resisted by any one who, for individual and selfish motives, wishes to have the institution prosper. For this purpose not unfrequently the same patient is entered two or three different times upon the records, and many other little dodges resorted to tending to create an impression of the usefulness of the charity. Very often the attending physicians, rather than see their projects fail, help to support it by their own contributions. Generally speaking, the problem which presents itself to these medical benefactors is not so much how can we prevent imposition by indiscriminate charity, as how can we secure a goodly attendance upon our classes.

While some physicians would strain a point to seek for this sort of practice, and at the same time quiet their consciences that in the end a good is to be accomplished thereby, there are others who strive in every way to deal fairly towards their institutions, their patrons, and their profession. The fact, however, that in spite of such care so many undeserving ones are benefited, proves the necessity for a great deal of reform in the management of our charities generally.

In suggesting any plan which might tend to mitigate the evils of which we complain, a difficulty presents itself at the very outset. How can the abominable practice of bidding for patronage on the part of some unprincipled individuals be prevented? The answer to this question is by no means an easy one. So long as it is possible for certain ones to use political influence for special appropriations to one-horse institutions, and manage them in their own professional interests, the outlook towards a radical reform is very poor indeed. We are virtually compelled, under the existing circumstances, to endure the system the same as we are required to do with any evil of which there does not appear to be any remedy. The root of the difficulty is to be found, for the most part, in the system of special legislation, which, however it may benefit the individual, is always in the end detrimental to the interests of the community. Such individuals would not do right if they could, and consequently to these any remarks regarding moral, legal, or professional obligations can hardly apply.

The great majority of the attending physicians and surgeons of our medical charities, however, have a desire for reform in the matters of which we speak. Very many take pains to sift the worthy from the unworthy applicants, but even when this is done, we all know how impossible sometimes it is to draw the proper distinction. Then, again, it is hardly to be expected that an attending physician should be a detective, or that his time should be occupied in individual examinations of the pecuniary standing of his dispensary or hospital patients. At best this is a disagreeable task, and should, in fact, be rendered unnecessary by proper management of the board of trustees before the patient should be allowed to present himself at all. The best way to accomplish this, is a subject well worthy the consideration of every one interested in the care of the sick poor.

In many portions of Great Britain the support of the dispensaries depends, as here, upon private contributions. Each contributor receives in return a certain number of tickets, which he can dispense among those who he may deem entitled to receive the aid of the institution. This would appear to be an excellent system, especially when it is understood that no one, except in cases of great emergencies, can receive help, unless provided with a ticket. The trouble has been, however, that the very means taken to prevent indiscriminate charity tends to increase it. Many of these ticket-holders are known to distribute their favors without any reference to merit, and with the sole purpose of increasing their custom as tradesmen, or of making sure their chances for political advancement. The trustees of the institution to which these people may be sent, although they may be aware of the fraud, have seemingly no power to prevent it.

The ticket-plan is, however, a good one, when properly carried out. At least it is the best one which we can adopt, one which offers the least objections, one which cannot seriously interfere with the management of any well-organized institution. The trustees of such should not only be practically but in reality the guardians of the deserving poor, and they should see to it that none others are benefited. We cannot see why, except in extreme cases, every applicant to a dispensary, hospital, or other charity should not come recommended as worthy by some one known to the person who may represent the board in granting admission. If this could be done, we should have the surest means of knowing if any one is really too poor to pay for medical services. There is no one so mean or so poor who cannot obtain a suitable certificate from some responsible person, be he former employee, clergyman, neighbor, or friend. If the various boards would agree to adopt some such plan, and strictly adhere to it, it would be one of the means towards a much needed reform in the management of every charity in the land. Let it be understood that no one can be treated unless he has the card of the managers, and let these latter be sure that none obtain these cards except those who are worthy, and we take an important step in the right direction. At least we think it deserves some sort of trial.

We have more to say upon this subject, which, however, we shall defer to some future occasion.

VIVISECTION.

The cause of vivisection has no lack of advocates in the world of progressive medicine. France has been discussing the subject for some years back, and is again interested in connection with the recent prosecution of the Committee of the British Medical Association which permitted the experiments of Dr. Magnin. In England still more enthusiasm is manifested in the defence. The various English medical journals have bestirred themselves to present the subject in its proper light. Of all the statements that have been made none are calculated to do more good than those presented by the *British Medical Journal*, to which, in another column, we call the attention of our readers.

THE CHANGE OF PLACE OF MEETING OF THE STATE SOCIETY.

The suggestions of Prof. Roosa regarding the change of place for the meeting of the State Society are worthy of consideration. In his communication in another column he recommends some of the well-known summer resorts of the State as best suited for places of meeting. We do not see any objection to this; in fact, they offer very many advantages which the different cities may not be able to give at the time of the year when the meetings are hereafter to be held. In no better way can pleasure be combined with scientific profit. The hotels at that time of the year would be comparatively empty, and the choice of halls for meeting could be made without difficulty.

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Alumni Dinner of the Medical Department of the University of New York.—On Thursday evening, Feb. 18th, the alumni of the Medical Department of the University held their annual meeting and dinner at Delmonico's. Previous to the dinner the following officers were elected for 1875:

For President—Chas. Inslee Pardee, Class of 1860. For Vice-Presidents—Alfred L. Carroll, Class of 1855; John R. Dickson, Class of 1842; S. Fleet Speir, Class of 1860; J. J. Peterson, Class of 1870; Thos. C. Finnell, Class of 1849; Josiah Gautier, Class of 1843. For Secretary, three years—F. R. S. Drake, Class of 1871; For Treasurer—C. Dixon Varley, Class of 1844. For Executive Committee—Jas. H. Anderson, Class of 1860; D. B. St. John Roosa, Class of 1860; S. Seabury Jones, Class of 1869; Stephen J. Clark, Class of 1861; F. Le Roy Satterlee, Class of 1868; A. E. Macdonald, Class of 1870; Jos. J. Hull, Class of 1858; Daniel H. Kitchen, Class of 1870; Nathaniel C. Husted, Class of 1850; Wm. T. Bacon, Class of 1871; Andrew Otterson, Class of 1844; Edward L. Pardee, Class of 1870.

Dr. James R. Leaming presided at the table, having upon either hand, as guests, Chancellor Crosby, Drs. Charles M. Allin, Thomas R. Pooley, Rev. Dr. Taylor, Hon. W. R. Martin, and Dr. Samuel Hall, of the Park Commission. Chancellor Crosby responded to the toast of "The University of the City of New York." Prof. Alfred C. Post to that of "The Medical Department of the University;" Dr. Allin and Dr. Pooley to the toast to "Sister Alumni Associations;" Dr. Roosa responded to the toast to "The Alumni Association." That to "Our Public Charities" was the source of speeches from Drs. Hammond, Loomis, Gillette, and Anderson; and the toast to "The Press" was answered by a speech from Col. Thomas W. Knox. The toast "To Woman" was responded to by Dr. A. E. Macdonald.

Reports of Societies.

ACADEMY OF MEDICINE.

Adjourned Meeting, Feb. 11, 1875.

DR. S. S. PURPLE, PRESIDENT, in the Chair.

DISCUSSION UPON PNEUMONIA—CONTINUED.

DR. LEAMING. It is a well-known fact that inflammatory diseases of the chest, unusually fatal in their results, have prevailed this winter. He regarded the term pneumonia as generic, including all the inflammatory diseases pertaining to the respiratory organs and their appendages, and notably that form of disease which is characterized by plastic exudation into the pleura without serum.

Is the present type of pneumonia different from what we have known during the last twenty-five years? Is it epidemic? and if so, what do we mean by this designation?

From 1851 to 1858 he saw his full proportion of these cases. His patients were among those whose occupation rendered them liable to all inflammatory diseases. His cases at that time were regularly treated with mercury, blisters, iodine poultices, etc., and fatal cases were rare, occurring only when there was some serious complication. Some of the cases went through without treatment, and apparently were better off than those which were treated. Consequently a plan of treatment was adopted which consisted in regulating the digestive apparatus, applying turpentine liniment to the chest, and administering stimulants to those who had been accustomed to their use, together with as good air and diet as could be obtained. The results were very satisfactory, and fatal terminations rare.

In 1859 diphtheria and cerebro-spinal meningitis made their appearance, and preceding them we were visited with an epidemic of ship-fever. Since that time fatal cases of pneumonia have steadily increased in number. And now, instead of regarding it as a simple disease, almost certain to get well, there is a dread of its approach.

The doctor then traced the spread of a disease which broke out among the British troops in Canada in 1812. It reached the Gulf of Mexico in 1820. It was a peculiar type of typhoid pneumonia. Previous to this the pneumonia of the Southern States was not different in degree of fatality from that in the North. What produced the change? The idea designed to be conveyed was, that these epidemic diseases, occurring in 1859 and later, are indicative of atmospherical changes, and that the influences that led to their development have been prolonged, and we are feeling their effect at the present time. Huxam's observations were quoted with regard to the prevalence of certain diseases when certain conditions of the atmosphere and certain winds prevailed.

If observations had been continued, and accurate meteorological records been made, it is possible we might have known more of the nature of the disease, and known better how to treat it.

Simple uncomplicated pneumonia is rare. Pleuropneumonia is common. This fact was noticed by Huxam.

The doctor remarked that he had not seen a case of pneumonia this winter that was not one of pleuropneumonia, and he regarded it as the important characteristic of the present epidemic.

The treatment is (1) abortive, (2) careful nursing and watching, (3) expectant. If the patient is seen in time the abortive treatment may be attempted, because if successful the danger is avoided. This may be done by different means. Any agent making a sufficiently sedative impression upon the organic life of the body may do it. It is sometimes done spontaneously. The application of heat or cold may do it. Powerful emetics or cathartics may also accomplish the same result. Stimulant agents, such as turpentine, croton-oil, blisters, etc., may do it. Heart sedatives, such as veratrine, opium, calomel, quinine, may do it. Each practitioner has his selected method by which this end can be accomplished. His own preference was first for the sedative action of calomel, and second for that of quinine. He had found a degree of certainty in the use of these agents which he had not found in the use of any other.

2. If the case is not seen sufficiently early to attempt the abortive plan, the next best is to carefully watch the symptoms, and persistently endeavor to carry the patient over, at the same time not forgetting that the disease will prove fatal in some cases.

There is one method worthy of particular mention under this head, and that has reference to rest during the inflammatory stage, by strapping the chest with adhesive plaster. It relieves pain, restrains cough, prevents exposure to air, allows of accurate physical examinations, in fact, renders them much more easily made, for the reason that the patient can change position without producing such annoying pain as would otherwise quite commonly be present. The temperature may be kept down by quinine or other means, and for the comfort of the patient, the physician may resort to such measures as his judgment may approve, having in view the conducting of the case to a successful issue.

DR. J. C. PETERS related his first experience in the treatment of pneumonia, in 1841, under the teaching of Schoenlein, of Berlin. His treatment consisted in the use of blood-letting, moderate in degree, and digitalis. These were frequently aided by alkalies, especially if a rheumatic element was present. Schoenlein placed great stress upon natural crises of the disease, and looked for crises by expectoration, skin, and urine, and unless he obtained these three points, he looked upon relapses as almost certain.

His success was great, but no greater than is to be obtained by other treatment.

His next experience was in Vienna, under Skoda, who adopted the expectant plan, and his success was very great.

At the same time he watched the treatment of Fleischman in the Homœopathic Hospital, in Vienna. In that hospital the patients had the most careful nursing, and again the success was very great. It was thought that the success was not so great, however, as that obtained by Skoda. But some of the recoveries seemed to border upon the marvellous, and some of the deaths were equally so.

His next experience was in the New York Hospital, where the cases were treated under the direction of Dr. Swett, and by the use of tartarized antimony, carried to vomiting and purging, which was kept up for about three days, and again the success obtained was very great. He had also seen the treatment by the use of small doses of tartar emetic, and with results equally as good as when large doses were used. He had seen the disease treated with aconite, but was not willing to say that this experience accorded with the extravagant statements of Ringer in the use of this article.

The treatment of pneumonia is not so simple as it was eight or ten years ago. A goodly number of cases apparently die from heart clot. A large number of cases are lost about the time of crises. He believed that if at that time the perspiration or urine became checked by the influence of cold, death quite commonly was the result, whereas, if the patient is kept warm and comfortable, he is far more likely to recover.

Dr. Hudson presented statistics upon the mortality of pneumonia from 1804 to 1874, in which it was noticeable that there has been a steady increase in the ratio, independent of the increase in population.

The rate of mortality appeared much greater in some years than in others. In 1816, when the spotted fever was prevailing, there was no special influence upon the mortality of pneumonia. So, too, with regard to cholera in the years 1832, '49, '57, etc., the effect upon the population was not such as to render the mortality from pneumonia greater than it had been in previous years.

Dr. O'Sullivan mentioned the influence of cold as a predisposing cause among the laboring classes. He also referred to the influence of the poor sanitary condition of many of our school-houses as a predisposing cause, especially the condition of the closets. With regard to change of type he had noticed a considerable amount of debility and a tendency to delirium.

His treatment was sustaining.

Dr. Caro adopted the sustaining treatment, and related his experience with the disease in the island of Sicily and this country. The subject was further discussed by Drs. Burke and Van Kleek.

MEDICAL BOARD OF THE EASTERN DISPENSARY, NEW YORK CITY.

Stated Meeting, January 14, 1875.

Dr. R. J. O'Sullivan, President, in the Chair.

DIPHTHERIA: ITS CAUSES, CONTAGIOUSNESS, AND TREATMENT.

Feeling the practical importance of arriving at some definite conclusions relative to the causes, spread, and treatment of diphtheria, the Medical Board of the Eastern Dispensary, New York City, has held three meetings, which have been devoted to a discussion of this disease in all its phases. A mass of facts and records of cases have accumulated on the Secretary's books, too extensive for reproduction, therefore a brief outline only is attempted in this report.

Dr. R. B. Prescott was sure that many cases reported as diphtheria are simply membranous sore throat, or cases of simple angina, where there may be considerable fever, and no swelling of the glands, but patches of exudations on the tonsils. In true diphtheria there is always extreme debility, and the disease may make its inroads very insidiously. He related a case of a Scotchman, in his practice, who complained for days of excessive weakness, pulse 135, pains in the back, no marked throat symptoms, in time swelling of the cervical glands, and finally paralysis of some of the involuntary muscles, and sudden death after a two weeks' illness. He regarded this as a case of constitutional diphtheria. While in the army, during the late war, something like one hundred cases of diphtheria appeared in his regiment after a long and fatiguing march. Stimulants and large doses of quinine were given to the soldiers, but some forty died. Upon the occasion of a recent visit to a village in New Hampshire he found much alarm existing, owing to the appearance of diphtheria, scarlet fever, and other diseases in a large and new school, which the authorities had been obliged to close. The cause of this epidemic was directly traceable to the neglect of the janitor to keep the earth-closets in proper order. He had used sawdust in place of fresh earth. The case of a German, aged 20, who suffered for a number of days of excessive prostration and great difficulty of swallowing, was reported. The pulse was 100, temperature normal, and a careful examination of the throat revealed nothing abnormal. The patient died at last of apnœa. The post-mortem examination revealed nothing unnatural in lungs, heart, larynx, trachea, brain, medulla, and spinal cord, which was examined as low as the fifth cervical vertebra. There had been much diphtheria in the neighborhood, and a fatal case in the house where this German died. The treatment was sustaining and expectant. The presumption is, that this was a case of diphtheria blood-poisoning, with no marked local symptoms.

Dr. Henry Raphael had seen but a few cases of genuine diphtheria which were severe, judging from the sequelæ, such as paralysis of the palate and strabismus. In one severe case, with all the usual symptoms, which made a good recovery, he resorted to cauterization, the use of the subsulphate of iron, inhalations of lime-water fumes, and carbolic acid, while from three to four grains of chlorate of iron and potassa were given every twenty-four hours. Strabismus appeared in three weeks after convalescence. In the case of a child, three years old, which recovered, the above treatment was pursued, and two to three grain doses of quinine were administered every two hours, and inhalations, from an atomizer, of the following mixture:

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Carbolici acidi............ ʒ ij.
Ferri subsulphatas........ ʒ iv.
Aquæ calcis................ ℥ vi.

M.

Dr. M. S. Buttles, by invitation, read a paper on diphtheria, which he ranked with scarlatina and measles for contagiousness. He denied that this disease is produced by foul air, poorly ventilated rooms, insufficient food, etc., although these conditions may render the system more susceptible to the effects of contagion. It occurs in children from one to fifteen years of age. Nursing children are not apt to have it; never saw it in a patient over fifteen years of age. Bacteria rotunda, found posterior to the false membrane and in the blood, are the cause and result of diphtheria. Their presence on the mucous surface causes the exudation of membrane, in which they germinate. Entering the blood, and thrown off, or exhaled, they produce the same disease in others. He had no doubt that something floats in the atmosphere which causes this disease. Diphtheria is not so malignant where it makes its appearance in yellowish-white patches as when of a bluish-white color, having the character of a blister, appearing first in the posterior nares and descending to the tonsils, and perhaps to the trachea and bronchii. In this last variety the swelling of the lymphatics is first noticed, and upon examination the nares are found to be filled with the false membrane, which emits an offensive odor. If the membrane forms in the trachea or bronchii, the patient may die of blood-poisoning or asphyxia. In the treatment we should disinfect the blood, prevent the absorption and formation of more membrane, and support the system. Dr. Buttles has been in the habit of using Smith's solution of bromine, U. S. P., both locally and constitutionally. He applies it in full strength to the membrane every two hours, until it is entirely destroyed, and administers it in doses of five to ten drops in water fully as often. The nose should be syringed freely with a weaker solution, if it is diseased. Quinine, iron, milk, beef-tea, etc., should be used. The patient should be isolated, the room freely ventilated and disinfected with carbolic acid. Under this treatment Dr. Buttles has lost but one case, and he has learned to regard diphtheria as comparatively harmless when absorption is prevented and the blood disinfected.

Dr. Robt. Prentiss related the case of a child in Madison St., New York, which had measles, and afterwards diphtheria set in, complicated with diarrhœa, which proved fatal. Every house, for a block or two, had cases of scarlet fever, measles, or diphtheria, and the street gutters in front were reeking with filth! In cases of scarlet fever he had often noticed diphtheritic complications, with serious nervous depression. He had used, with benefit, inhalations of the fumes of lime-water through the medium of the spray. He mentioned the case of a child, six years old, which had suffered from diphtheria. In three weeks from convalescence paralysis of the heart ensued. Among the sequelæ of diphtheria which he had noticed were blindness, paralysis of the muscles of the arm, paraplegia, and hemiplegia.

Dr. John P. Garrish viewed diphtheria as of atmospheric origin, caused by the bacteria or other impurity which floats in the air. He looked upon it as a blood-poisoning, and doubted if it ever affected people in the full vigor of health. He knew the disease to be contagious, and would have the public authorities do all in their power to keep the air pure and the people in good health. To this end he deprecated the use of salt in the streets in winter, and said fresh straw should be placed in the street cars every day; that every child in the public schools should have a certain number of cubic feet of air, and that some means should be devised for the proper ventilation of tenement-houses. If people die from diphtheria, it is through neglect; and not more than one case in twenty reported as diphtheria is such in reality. He has no fear of the disease when properly treated. Was in the habit of giving his patients three grains of the chlorate of potassa, dry, upon the tongue, every two hours, with no drink for ten minutes. He also gave from three to five grains internally, every four hours. This for children. He urged the use of fresh milk, and favored the bromine treatment.

A lengthy discussion followed, participated in by Dr. Geo. V. Skiff, Dr. David Brecks, Dr. Fuller Walker, Dr. Gangert, Dr. Fluhurz and others.

Dr. O'Sullivan remarked that it was not true, according to his experience, that diphtheria was easily cured. On the contrary, in very many cases no treatment whatever could do it. Despite the free administration of stimulants, and quinine in large doses, it was doubtful that local applications were useful in the earlier stages of the disease, beyond the cleansing of the affected parts; indeed he was convinced that in many cases it did mischief; however, in an advanced stage, when the blood-poisoning is being rapidly eliminated, and the deposit remains as a foreign body, blocking up the air-passages, and preventing sufficient nutrition at a time when it was most needed, local applications may be of service. Two such cases occurred in his practice, where eminent physicians had pronounced the cases hopeless. Local applications were made with the happiest results. The patients made subsequently a rapid recovery. Errors in diagnosis should be guarded against by a thorough examination.

The horse-cars had been mentioned, from their crowded condition and ill ventilation, as a cause of propagating diphtheria. He was not prepared to affirm or deny this statement. It was probable that the exposure to colds, which were incidental to city-car travelling in the winter season, acted as a predisposing cause. He had seen on several occasions, on the east-side cars, small-pox patients on their way to and from the hospital. Indeed, the odor could be detected on entering these cars.

A great deal had been said for several years past concerning the unsanitary condition of tenement-houses, but their condition remains pretty much as it has ever been since the establishment of the Health Board. Defective drainage has been talked about until it may be said it has *drained off* all other mooted sanitary measures, and as yet no legislative action on this important subject had taken place.

The majority of the physicians participating in the discussion agreed on the following points: That diphtheria can be communicated from one person to another; that bacteria floats in the atmosphere; that certain unfavorable conditions, which lower the standard of health, as foul air, wet feet, etc., predispose an individual to take on the disease; that the apparently strongest, as well as weakest individuals, may have the disease; that there may be great constitutional disturbance without serious local throat affections; that dangerous sequelæ may follow if the blood is not thoroughly disinfected; that, as a rule, an excessive use of stimulants is not good; that milk is a prime article of nourishment; that the disease should be treated both locally and constitutionally; that diphtheria, when taken in season, is easily controlled by proper remedial agents; that situation of house or town is no preventative against the disease; that many cases reported as diphtheria are not such, and that disinfectants should be largely used in the treatment of the disease.

At the conclusion of the discussion the following resolution was adopted:

Resolved, That diphtheria is contagious; that it should be treated on antiseptic and disinfectant principles, and that it can be controlled by proper medical treatment.

Fuller Walker, M.D., *Secretary*.

Correspondence.

THE CHANGE OF PLACE OF MEETING OF THE STATE SOCIETY.

To the Editor of The Medical Record.

Sir:—In your editorial on the last meeting of the State Society, you very properly, as many of the profession think, discuss the question of a change in the place as well as time of meeting. Will you allow me in behalf of some who are desirous that the meeting should be held where rational mental and bodily relaxation can be had in conjunction with scientific labor, to advance the claims of such places as Saratoga Springs, Lake George, and Niagara Falls, as against cities like Albany, Utica, Rochester, Buffalo, etc. At Saratoga, for example, the Society would have not only ample but unsurpassed hotel arrangements. The broad piazzas of Congress and Union Halls, the walks overshadowed by the leafy glory of June, the drive to the lake, would all invite and secure social converse and brain rest. Besides, if we meet in any of the cities, there must always be a great strain upon the resident profession, not only to keep away from the calls of their patients, but to provide some kind of entertainment for those who are to a certain extent their guests. At Saratoga we should all be free from that sort of interruption and responsibility, and the Society, with ample and natural resources, would care for itself.

I am not sure, judging from the slight tinge of good-natured sarcasm in your remarks upon those who write upon "eye subjects," whether you would be inclined to attach much importance to the example of such societies as the American Ophthalmological and Otological; but I may say that, after an experience of meeting in Boston and New York, we have found a meeting in Newport very much more satisfactory, and for the same reasons that have led me to suggest Saratoga as a very fitting place for the meeting of our State Society. The Albanians, of all others, as being those who have been most heavily taxed to receive us, would welcome a change which will make the meeting a place of enjoyment to them as to the others, instead of one of extra care and work.

I am, yours very respectfully,

D. B. St. John Roosa.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from February 14th to February 20th, 1875.

Bentley, Edwin, Assistant-Surgeon.—Granted leave of absence for one year. S. O. 28, A. G. O., February 16, 1875.

Knickerbocker, B., Assistant-Surgeon.—Granted leave of absence for one month, on Surgeon's certificate of disability, with permission to leave the limits of the Department. S. O. 10, Department of the Columbia, January 30, 1875.

Medical Items and News.

Specialities in Medicine.—Dr. Jacobi, Chairman of the Committee of the President's Address (State Medical Society), believing that our abstract of his report may convey a false impression, asks us to publish the following extract:—

"The general remarks of our President on the extinction of four hundred and fifty journals in the United States and Canada, and the unnecessary subdivision into specialities ought not to go unheeded. It is a matter of sincere congratulation on the part of all of us that those four hundred and fifty Journals died so early when there was no nerve-centre, no viability in them. Let us hope that many more of the same class will speedily fulfill their natural destination. We still have a large number of journals which express and contain nothing besides the desire of the editor or editors for notoriety, the title-page being the only original article, and the contents exhibiting the results of an active pair of scissors. Such publications, if they contrive to exist for any length of time, lower the tone of medical literature, demoralize particularly the younger members of the profession whose legitimate ambition and zeal is suppressed by beholding the facility with which notoriety is obtained, and diminish the chances of development on the part of better journals. This influence on the younger members of the profession ought not to be underrated. While they hope for success, they must look for the means of obtaining it. There are but few mortals whose ambition, both intellectual and moral, extends beyond the accomplishments and success of the best and most successful around them; but few who learn for the sake of knowledge, and work from inner necessity. Thus it is, that so many of them are blinded by the success of older specialists to the manner in which these became not only specialists, but noted and successful men. They are too apt to believe, that to be successful nothing is requisite but to be specialists. Therefore they are apt to rush into a speciality as soon as, or before, they graduate, neglect general medical knowledge, and miss their aim, both scientifically and pecuniarily, because they ignored the fact that their admired examples were medical men before they were specialists, and went, so to say, with a large capital, and all their mind, into a special business. It is true that the *progress of medicine depends on the continued efforts of specialists.* But those who have contributed most to the advancement of our science, were men who did not select a special work before mastering the domain of universal medicine, but selected it on the foundation of a general thorough education and knowledge. The brief remarks of the President, your Committee consider very timely indeed. While they do not disparage special studies and specialities of practice, they contain a wholesome warning against the heedless neglect of general medicine. Special journals, finally, while—when thoroughly scientific—they will not command a large sale, are *not only valuable but necessary.* Every worker needs them for study and reference. A practitioner may not require them for months, but now and then he wants to know about the chemistry and physiology of an old or new remedy of his—he turns to a journal on materia medica and therapeutics and is sure to find what he wants. He has an obscure case of nerve-disease, implicating the vaso-motor nerves—he turns to a journal (not such, however, as are published for the sake of notoriety and a large sale amongst laymen) on anatomy and physiology of the nerve-centres. Thus special journals may be, or either are, necessities for readers and writers alike, and constant sources of special information. *They are, when strictly scientific, the best indications of both the productive powers and the scientific needs of the medical men of a country.*"

The Annual Dinner of the Alumni Association of the College of Physicians and Surgeons, will take place at Delmonico's, on Tuesday evening, the 2d of March, at 7 p.m. A number of distinguished gentlemen have accepted invitations to be present, and interesting speeches may be expected.

President Eliot on Physical Education.—In his annual report President Eliot, of Harvard College, discusses the subject of the physical education of young men. While he does not recommend compulsory physical exercise at college, he thinks this should be part of every school education. "Most American schools," he says, "entirely neglect this very important part of their proper function; many young men, therefore, come to the university with undeveloped muscles, a bad carriage, and an impaired digestion, without skill in out-of-door games, and unable to ride, row, swim or shoot."

The liberal and progressive character of the government of the university is shown nowhere more clearly than in its desire to promote the physical development of its students. The changes which have taken place during the past ten years in the character and variety of these exercises, and in the number of students who participate in them, is marvellous. For instance, to provide the greatest facilities for boating, a boathouse has been built by the corporation, so arranged that all students, for a very moderate sum, may indulge in this exercise for the season. The numerous athletic clubs which have of late years been formed, and the great variety of manly sports practised at Harvard, are abundant evidence of the success of this policy. The gymnasium has become far too small for the greatly increased number of students who frequent it, and it is now proposed to convert it into a swimming-bath which would be available at all seasons of the year.

Decline of Homœopathy Abroad.—"It is not to be wondered at that we now obtain few open accessions to our ranks; that the vacancies occasioned by deaths are scarcely filled up by new converts. Apparently homœopathy is almost at a standstill as regards professed adherents in this country. The Homœopathic Directory of this year contains few new names of practitioners that were not in the Directory of last year. Nor is it surprising that we have renegades. . . .

"The paucity of recent conversions to homœopathy in other countries of Europe has been admitted and commented on by the homœopathic periodicals, and is, I think, satisfactorily accounted for by what I have stated."—*Dr. Dudgeon's Presidential Address at the British Homœopathic Congress.*

What has Vivisection Done for Humanity?—*The Br. Med. Jour.*, of January 9th, says: "Recent circumstances render it desirable that some attempt should be made to answer the question whether or not the practice of making experiments on living animals has materially aided the progress of medical science. To answer this question with completeness would involve an encyclopædic investigation of the sources and history of our present knowledge. It would be a work into which a great fund must be brought of patience, time, and labor. We shall, however, endeavor to present here at once and hastily, some leading data, such as may be gathered from a cursory review of the subject. We offer them as *mémoires pour servir*, and shall hope to be able to finish the picture by filling these rough outlines as time and circumstance will permit. We invite assistance and criticism from physicians, surgeons and physiologists. We present to-day a first contribution in the following skeleton sketch:

A. *It has succeeded in advancing our knowledge of physiology, by* 1. Discovery of the two classes of nerves, sensory and motor, by Sir Charles Bell. 2. Discovery of the functions (motor) of the *portio dura* of the seventh pair by Sir Charles Bell. Previously to this discovery, the *portio dura* was often cut by surgeons for the cure of neuralgia! 3. Discovery of the functions of the anterior and posterior roots of the spinal nerves by Sir Charles Bell. 4. Discovery of the functions of the anterior and posterior columns of the spinal cord by Sir Charles Bell and others. 5. Discovery of one of the functions of the cerebellum in co-ordinating muscular movements, by Flourens and others. 6. Discovery of the functions of the gray matter on the surface of the cerebral hemispheres as connected with sensation and volition, by Flourens, Magendie, etc. 7. Discovery of the motor functions of the gray matter covering certain convolutions in the interior part of the cerebral hemispheres by Hitzig, Fritch, Ferrier, Gudden and Nothnagel. 8. Demonstration of the circulation of the blood by Harvey. 9. Measurement of the static force of the heart and discovery of other hydraulic phenomena, of the circulation by Stephen Hales, Ludwig, and others. 10. Discovery that atmospheric air is necessary to the maintenance of life, and that, when stupified by its withdrawal, animals may be resuscitated by readmitting it, by Robert Boyle, in 1670. 11. Discovery that atmospheric air by continued breathing becomes vitiated and unfit for respiration, by Boyle. 12. Discovery that the air was not only vitiated but also diminished in volume by the respiration of animals, by Mayon, in 1674. 13. Discovery of the relation, as regards respiration, between animal and vegetable life, by Priestly, in 1722. 14. Great discovery by Lavoisier on the physiology of respiration, from 1775 to 1780, namely, that respiration acts only on the respirable portion of the air, or oxygen, while the remainder, nitrogen, is entirely passive in the process; secondly, that when animals are confined in a limited space, they die when they have absorbed, or converted into carbonic acid, the greater part of the oxygen, and so reduced the air to the state of an irrespirable gas. 15. Numerous facts in the physiology of digestion observed by Blondlot, Schwann, Bernard, Lehmann, and others, by experiments on animals. 16. The discovery of the functions of the lacteals, by Colin, Bernard, Ludwig, and others. 17. The discovery of the functions of the right pair of nerves in relation to deglutition, phonation, respiration, and cardiac action, by John Reid, and others. 18. The discovery of the functions of the sympathetic system nerves, by Pourfourdu Petit, in 1727, Dupay in 1816, Brachet in 1837, John Reid, and Brown-Sēqnard. 19. The discovery of the phenomena of diastaltic or reflex action, by Marshall Hall. 20. The discovery of the action of light on the retina, by Horngren, Dewar, and McKendrick. 21. The discovery of the glycogenic function of the liver, by Bernard Macdonnell, Pavy, etc. 22. The discoveries of the whole series of facts in the domain of electro-physiology, by Matteucci, Du Bois-Reymond, Pflüger and many others.

B. *In aiding Medicine and Surgery.*—1. The transfusion of blood, and introduction directly into blood of medicines; first proposed by Robert Boyle, in 1665. In 1665 Lewis transfused blood from vessels of one animal into those of another. First done in human beings by Dumis and Emmerts, in France, in 1666. Blundell's celebrated experiments on animals in 1818. Since done by many others—Dumas, Milne-Edwards, Dieffenbach, Bischoff, Doubleday, Brigham, Waller, Burton Brown, Klett, Lane, Lavy Bérard, etc. 2. Artificial respiration. Vesalius showed that by blowing up the lungs with air, after the chest was opened, stoppage of the heart's action might be delayed for some time. Hook, in 1664, first demonstrated the possibility of artificial respiration. Brodie, Hope, Le Gallois, Wilson, Philips, Marshall Hall and Silvester have practised it on human beings. 3. The cause of the cardiac sounds have been determined entirely by vivisectional experiments. 4. Phenomena of the circulation within the cranium examined experimentally by Kelly, Burrows, Reid, etc. 5. Hunter's operation for aneurism was first demonstrated and tried on living animals. This he did in 1785. He also found by experiments on animals, that in many cases the arterial coats were diseased immediately above the aneurism, and that consequently it was necessary, in order to avoid secondary hemorrhage, to place the ligature higher up. 6. The office of the periosteum in regeneration of bone, has been demonstrated experimentally by Dr. Hamel in 1740, Hunter in 1772, Lynn in 1837, Wagner in 1853, and Leopold Ollier in 1858. The practical importance of these observations is recognized by all surgeons who have had much to do with diseases of bones and joints. 7. The researches of Redfern into disease of cartilage. 8. The researches of Stricker, Cohnheim, Von Recklinghousen, and many others, on inflammation, more especially of the cornea and serous membranes. 9. Without vivisection experiments we would know almost nothing of the phenomena of inflammation. 10. Experimental inquiries into many zymotic diseases, showing occurrence of micrococci.

C. *In advancing Therapeutics, Relief of Pain, etc.*—1. Use of ether. 2. Use of chloroform. 3. Chloral discovered experimentally by Leibreich. 4. The action of all remedies are only definitely ascertained by experiments on animals. 5. Action of Calabar bean by Frazer. 6. Antagonism between active substances and the study of antidotes—many observers.

The above are simply examples which have readily occurred to the mind. To record all the facts given to physiology by experiments on animals, would simply be to write the history of the science. Therapeutics is yet in its infancy; but nearly all the facts definitely known regarding the actions of remedies have been gained by experiments on animals. To stop experiments on animals would as surely arrest the progress of physiology, pathology and therapeutics as an edict preventing the chemist from the use of the retort, test tubes, acids and alkalies would arrest the progress of chemistry.

The Triple Funeral.—One of the most remarkable events of the past week was the funeral, on the 16th inst., of the three brothers Delafield, who died almost simultaneously, of pneumonia contracted during the cold weather of that period. Joseph, the eldest, was eighty-five; Henry, eighty-three; and Edward, an obituary notice of whom appeared in our last issue, eighty-one years of age. Trinity Church was crowded, a large number of physicians being present.

Tweed.—Drs. J. R. Wood and Alonzo Clark were recently appointed a committee to examine into the physical condition of William M. Tweed and the treatment he is receiving in the penitentiary, and have advised that he be permitted to remain on duty as orderly in the hospital ward, and be treated as such.

Dr. R. A. Vance.—It is said that Dr. Reuben A. Vance, who had but recently been married, while absent in Pennsylvania, manifested symptoms of insanity, and while being brought home in charge of an officer managed, during the sleep of the latter, to obtain possession of his pistol and attempt self-destruction. At latest accounts the injury had not proved fatal.

A Rail-car Accident.—The son of a well-known physician of the city was run over recently by a street car on Madison Avenue, and suffered the loss of his leg. The accident resulted from an attempt to get on the front platform while both the driver and conductor were inside the car. Sometime in April last the Board of Health made an effort to have the front platforms of our street cars closed by gates, so as to prevent access to or egress from them. Although the Legislature have granted them powers which are more nearly autocratic than anything which we have besides it in our government, the gates have never appeared, and the list of avoidable deaths and injuries from this cause goes on increasing.

An Outbreak of Puerperal Fever.—The particulars of a recent outbreak of puerperal fever, at Wandsworth, near London, are given in *The Lancet*, of January 23, 1875. There were altogether ten cases, six of which had proved fatal at that date: five of these cases were attended by one midwife, and the sixth occurred in the practice of a medical man, and has been the subject of a coroner's inquest. These cases occurred in streets some distance apart, and their cause was attributed to the attendance of the midwife in question. The last fatal case was that of the wife of the physician mentioned. He had been called to see one of the midwife's cases, and shortly afterwards attended his wife in her confinement. Two days afterwards she had rigors, abdominal pains, etc., and died on the following day. An inquest was held to inquire if the deceased had had proper attendance, etc. This was most satisfactorily proved to have been the case, and a verdict of "death from natural causes" was returned by the jury. The writer in *The Lancet* says: "We must now inquire how it was that this woman was permitted to go from case to case, carrying infection with her for so long a period. We think it beyond all possibility of doubt that had she been stopped after the first case all the subsequent mortality and misery would have been prevented. The reason she escaped detection for so long a period appears to us to be as follows: She must have called on different medical men to certify the cause of death, and in no case, or perhaps only in one or two, was the death registered as puerperal fever. The Registrar-General, we all know, issues weekly a return of the deaths taking place in the metropolis, and is always careful to chronicle deaths from such causes as this. Had, therefore, the deaths been correctly registered, the public by this time would have been made aware of the existence of the fever through these weekly returns. We admit that there is some difficulty in a medical man, on being called in to an isolated case, committing himself at once to the statement that the case was one of puerperal fever, and believe that in many instances he would prefer to return the death as peritonitis, inflammation, thrombosis, etc. This difficulty and hesitation would cease if it were the law to hold an inquest in every case occurring in the practice of a midwife. In ordinary times such inquests would be few, but at times like the present, when puerperal fever is prevalent, it would be a considerable safeguard by sounding the note of alarm, and causing precautionary measures to be adopted.

Extraordinary Fecundity.—The Countess of Schlippenbach, of Heiligenkrew, in Croatia, was lately delivered of four infants at a birth—three girls and a boy.

A woman named Latouche, in Quebec, on the 10th of November last, had four boys at one birth.

Weekly Bulletin of Meetings of Societies.

Monday, March 1.—Medico-Chirurgical Society, Morrisania Medical Society, New York Neurological Society, Pathological Society of Brooklyn.

Tuesday, March 2.—New York Obstetrical Society, East River Medical Association, New York Dermatological Society, District Medical Society, Co. of Hudson, N. J.

Thursday, March 4.—New York Academy of Medicine. "On the Merits, Real and Comparative, of Amputation in the lower third of the Leg, with Suggestions as to the Prospective Value of Periosteal Flaps," by Prof. Stephen Smith, M.D.

Friday, March 5.—Medical Library and Journal Association.

Original Communications.

REMARKS ON SIMULATED AND HYSTERICAL LOSS OF SIGHT.*

ILLUSTRATED BY CASES.

By D. B. ST. JOHN ROOSA, M.D.,

PROFESSOR OF DISEASES OF THE EYE AND EAR IN THE UNIVERSITY OF THE CITY OF NEW YORK. SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL.

It is sometimes very difficult to draw the line between malingering and hysteria, for I suppose we all take it for granted that hysteria is a disease, and not simply a state in which diseases are absolutely feigned. Delicate girls and women, who have usually a diseased uterus or intestinal canal, readily and persistently complain of symptoms, to which an objective examination fails to find any foundation, and we are sometimes puzzled to know whether the abnormal condition of some organs and passages reflect a so-called functional disease, as really troublesome as an organic one, or whether it is a simple case of lying, for the purpose of exciting sympathy or attention. In the study of diseases of the eye our means of examination and conclusion, independently of the patient's statements, are perhaps as reliable as in any other part of our science, and yet there are some cases, even in ophthalmology, where the most exact examination of the choroid, retina, and optic nerve entrance, will not tell the actual amount of disease. At any rate, like all practitioners, we are sometimes called upon to discriminate between positive simulation without any motive—other than that of escaping some service or duty, such malingering as we see in soldiers or sailors, or in inmates of hospitals who have recovered from some malady, but who are unwilling to leave a comfortable hospital—and that form of simulation where, although the organ or organs complained of, are not morbidly affected to any considerable degree, the brain acts in such a morbid way that the patient exaggerates a slight disease or imagines a loss of function that does not really exist. During the last year my attention has been called to the not very infrequent cases of hysterical amblyopia, by two rather marked cases in my own practice, and one in that of my colleague, Dr. Agnew. They illustrate, I think, some rather interesting points in diagnosis and treatment, and I have therefore ventured to ask your attention to an outline of my own cases, with a passing allusion to that of Dr. Agnew's, and to a few remarks upon them.

The first case of which I wish to speak was, as was the second, that of a young woman, who suffered somewhat from dysmenorrhœa, and who was rather anæmic than otherwise. Thus, what are ordinarily supposed to be good foundations for hysteria were well laid.

Hysterical Amblyopia, with Concentric Limitation of the Visual Field.—Recovery.

Abbie X., æt. 7, a rather delicate-looking brunette, was advised to consult me by the family physician, in regard to the failure of her sight. The loss of sight was said to be so great that her father seriously considered the idea of sending her to an asylum where she might be educated as a blind person. The general health of the patient seemed to be fair, except that menstruation was irregular and painful. The statement of the case as given by the young woman herself and by her father, was that, some months before, she had had an "inflammation of the eyes," and that since then, she had never fully recovered her eyesight; indeed of late it had failed very fast, until now, when she could just see to get about, but not to read or to sew. Her vision, as tested, by means of Snellen's test-types was, according to her own statement, $\frac{20}{200}$. The eye was examined by means of the ophthalmoscope. and absolutely no deviation from a normal fundus or from sound media was found. She was afterwards examined by a committee of the New York Ophthalmological Society, and they detected nothing to account for the alleged loss of sight, although an arterial pulsation was observed in one of the eyes. This arterial pulsation I was never able to see, nor were any of the surgeons of the Manhattan Eye and Ear Hospital, who examined the case. There was a hypermetropia of $\frac{1}{36}$, and when the patient's eyes were fully under the influence of atropine a positive glass of 36 inches focal distance caused her to say that her vision was $\frac{20}{100}$ instead or $\frac{20}{200}$. The visual field was concentrically limited to such an extent that when the head was 6″ from the blackboard, and the eye was fixed upon the cross made for testing the field, the visual field was only about 3 inches in diameter. It is at once evident that a patient with such a small visual field as this one, and with so great a loss of vision, would have some difficulty in getting about alone, or would at least grope about somewhat. When I observed that besides the negative evidence of the ophthalmoscope, there were the facts that the patient not only did not grope about like a blind person, but that she was uncommonly active in getting about, and had no difficulty in seeing anything but printed type and sewing, the diagnosis was easily made. The patient had made up her mind to lie about all direct tests of vision, or she was actually self-deceived about her sight, but she had no notion that her vision could also be tested by her ease in getting up and down dark stairways, distinguishing the faces of visitors, and so forth. Although her father had brought her to my office with an idea that some operation would be necessary, or that she must go to a blind asylum, I informed him that his daughter would undoubtedly get well, and during all the time she was in the Manhattan Eye and Ear Hospital, until she recovered, about four weeks, she was treated, as I have reason to believe lunatics of a mild type are treated in well-regulated insane asylums. I found great difficulty in convincing her father that she would not become perfectly blind. Indeed, I have generally found that the friends and relatives of hysterical patients are the great bar to their getting well, and in the treatment of hysterical amblyopia at least, that it is well to have them completely beyond the chance of condoling with the patients. The treatment consisted in an attempt to improve the quality of the blood. She took iron, practised cold bathing, had exercise in the open air, while at the same time she was told that her eyes would gradually get well if she persevered in the prescribed treatment. Each week she was expected to read an additional line of Snellen's test-types, which she did, and on the 27th of October she was sent home, with an amount of vision expressed by the fraction $+\frac{20}{30}$, that is to say, she could read $\frac{20}{20}$ fluently, and pick out some letters of $\frac{20}{20}$. Yet she persisted in saying that the visual field was the one she first admitted. Of course such a fact is perfectly inconsistent with the good vision she confessed to in reading type.

Although the main feature in this case was probably malingering, there are others which cause me to class it among the hysterical cases. There was a motive for lying about her vision in the fact, that she was very anxious to learn to play on the piano, but as that privilege had been denied her, and she had found that a blind friend was learning this much-desired art in a blind asylum, she resolved to become blind that she might also become musical. But there was some hypermetropia, and enough to cause some trouble in reading or sewing for any length of time without glasses, and she had had an attack of inflammation of the eyes, probably catarrhal conjunctivitis. These two factors, with the disordered general condition dependent upon her dysmenorrhœa, probably caused the hysterical exaggeration as to her loss of vision. I am sorry to hear that since her dismissal from the hospital, the young woman, being surrounded by those who seem to prefer to believe her statements to those of her medical advisers, who have assured her relatives that she has no organic disease of the eyes, again declares that she is blind, and that there are serious thoughts of sending her to a blind asylum.

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* Read before the New York State Medical Society.

As is well known, we have ample tests for the detection of simulated complete amaurosis, especially when the patient claims that there is complete loss of sight in one eye; but I am not aware that we have any thoroughly good means of ascertaining whether a patient can see further than a certain line of Snellen's test-types, or whether the visual field is actually of the size that is claimed. It is true that Snellen states that malingerers stop short at a certain point, and deny that they can pick out even another letter, of whatever shape, from the next succeeding line; but this test, valuable as it is, will not always aid us to discriminate between actual and simulated loss of sight, so that our conclusions must be drawn from the objective examination of the eye with the ophthalmoscope, the general condition and the surroundings of the patient, the motives for simulation, and so forth.

The claim of the great diminution in the size of the visual field in this case was a puzzle to me, for a young woman who had not wit enough to see that an ability to get about everywhere with great ease, and to discern faces readily, was inconsistent with such a great loss of power to read type, would hardly be supposed to be so clever in dissimulation as to deny having a visual field large enough to prevent blind groping, and yet from the beginning to the end of the treatment persisted that it was ridiculously small. The detection of this kind of hysterical malingering, so far as I know, can only be had by a comparison with the other symptoms.

The second case of hysterical amblyopia to which I referred in the beginning of this paper, is one that I saw several times in consultation with Dr. Frank H. Rankin, one of the clinical assistants at the Manhattan Eye and Ear Hospital. I am indebted to him for the full notes, from which my outline is taken.

Conjunctival Congestion from a Scratch—Hysterical Amblyopia and Reduction of the Field of Vision—Dysmenorrhœa—Ovaritis—Recovery.

Maggie M., æt. 17, nurse. Previous to Jan., 1873. the patient never had any trouble with her eyes, and on that date the child she was taking care of scratched the ball of the left eye, about two lines from the cornea, on the nasal side; considerable pain and redness followed this scratch, which, however, subsided in a few days. In August of the same year the same eye became very much inflamed and exceedingly painful to the touch. This attack occurred while the patient was at the sea-shore, and she attributed it to the glare of the sand. This period of inflammation lasted about a week, and occurred while she was menstruating. The week before Dec. 25, 1873, the left eye began to be painful, slightly congested, and to feel "very uncomfortable." The next day it suddenly became *very* painful, the vessels of the ocular conjunctiva very much congested, and the ball of the eye exceedingly sensitive to any touch. There was also profuse lachrymation.

These symptoms were related to Dr. Rankin on the afternoon of that day, when, without seeing the patient, he advised the instillation of a one grain solution of the sulphate of atropia four or five times a day. A saline cathartic and quinine were also prescribed.

Dr. Rankin saw the patient on Dec. 30th, 1873, for the first time. There was simply a slight amount of congestion of the ocular conjunctiva, and an occasional sharp twinge of pain was felt in the eye. The treatment by atropine was ordered to be continued.

Jan. 12th, 1874.—The patient has had but very little trouble with her eyes since the last date, except from cloudiness of the vision, which she has been led to attribute to the atropine, which she has used since the last note. The conjunctiva is clear; slight tenderness on moderate pressure upon the eye-ball. The tension seems to be increased. The ophthalmoscopic examination shows a large excavation of each optic papilla, but larger in the left than the right.

On the 15th of January I first saw the young woman, at the Manhattan Eye and Ear Hospital, in consultation with Dr. Rankin. Vision was found to be $\frac{20}{70}$ in the left eye, and $\frac{20}{40}$ in the right. There was some pain experienced in the eye, and it was tender. and the tension was increased. The excavation, although very large, was decided to be physiological, and it was supposed, although the ophthalmoscopic evidences were of a negative character, that we were dealing with a case of choroiditis.

Leeches were ordered, and the atropine was continued. On the 19th the pain continued, but was relieved for a time by atropine, the vision had sunk to $\frac{20}{200}$ (according to the patient's statement), and in the right eye to $\frac{20}{70}$. The field of vision was then examined and found to be very much diminished. The diminution was concentrical and symmetrical, so that the diameter was not more than four inches, as tested in the usual manner before a blackboard.

The same treatment of leeching and the use of atropine was carried on until Jan. 22d, when the vision had sunk to $\frac{16}{200}$ with the left eye. and $\frac{20}{200}$ right. The visual field was also very small. The patient complains of much pain unless atropine is freely used. The tension of the globe seems to be increased, but neither the ophthalmoscopic appearances nor the patient's ability to go about alone gave any proof of such a loss of vision as that of which the patient complains. Jan. 23d, Drs. Agnew and Webster examined the case, and confirmed the facts noted of increased tension, large physiological excavation, and diminished field of vision. Dr. Agnew considered the case as somewhat obscure, but that it might be regarded as one of neuro-choroiditis.

The patient was seen by Dr. Rankin every day until Jan. 27th, when he found her in a severe attack of hysteria. Up to this time the notes show considerable variation in the visual power as stated by the patient. These variations serve to mark the functional nature of the disease, *e.g.*, on Jan. 24th, it was $\frac{20}{50}$ in each eye, while on the 26th, it was claimed to be but $\frac{20}{200}$ in the right and $\frac{20}{70}$ in the left. The hysterical attack was evidenced by a state of apparent unconsciousness to what was going on about her, while at the same time the patient was endeavoring to remove her clothing, etc., etc. She was ordered *decubitus*, beef-tea, wine; while tincture of valerianate of ammonia quieted the urgent symptoms.

Dr. Rankin now began, after this attack had passed away, the hypodermic use of the nitrate of strychnia, beginning with a $\frac{1}{60}$th of a grain, under which she slowly recovered until Feb. 6th. when she had some nausea and vomiting and there was found to be some pain on pressure over the left ovary. The pressure caused nausea and a feeling of faintness. The patient had complained for a day or two before that she could not go down stairs without falling forward, while she could walk perfectly well on a level floor. A blister was applied over the left ovary, and a laxative followed.

On Feb. 11th, five days after, the nausea and vomiting still occur, and are sometimes preceded by a chill, followed by fever and sweating. The left eye is occasionally painful and red, but it is on the whole much better. The strychnia is now given up, and quinine and opium given. The dose of strychnia reached was $\frac{1}{16}$th grain. Feb. 7th, the vomiting has occurred but once in the last six days, and there have been no chills. Vision is now $\frac{20}{50}$ in the left eye, + $\frac{20}{40}$ in the right, and the field of vision is nearly of the normal size.

On March 2d, the quinine having been continued up to this time, the patient was quite well, occasionally having a little pain in the left eye, which was always relieved by atropine; vision $\frac{20}{20}$ in each eye. Field of vision normal.

Subsequent inquiry showed that this patient always had marked tenderness over one ovary during menstruation, and that menstruation was always painful, and that after the slight injury to her eye it would flush up at each menstrual period. Besides this the first attack occurred during a menstrual period.

REMARKS.

I have no doubt that this young woman suffered some considerable pain in the eye, for its conjunctival congestion expressed that; but the exaggeration chiefly occurred in the answers as to her visual powers for letters and the visual size field. There was certainly a considerable amount of disease, although chiefly reflected.

In addition to the class of cases of hysterical amblyopia that I have attempted to delineate, there is another form that is not unfrequently seen, and one for which a few general remarks will suffice, without any account of particular cases. The hysterical ophthalmia in question is as apt to occur in males as in females, and is characterized by an amount of photobia, for which the condition of the eyes gives no warrant. Such patients come to our Eye Hospital, with their eyes not only bandaged but shaded, and over these protections sometimes blankets or shawls. Dr. Agnew saw one such patient, a young man, who had been kept in a dark room for nine years, and I have seen one who had been thus treated for two years. In neither of these cases was there any disease of the eye, except such a normal amount of photophobia that any one kept in a dungeon for a period of years would undoubtedly have.

The vague fear of amaurosis leads some sensible people to exclude eyes that show the least abnormal sensitiveness to light, from any illumination whatever. There is no chronic disease of the eyes that needs absolute exclusion from the light for but a few days or weeks at a time, and then under the direction of a physician; while acute cases will certainly soon get from the bandage to the dark-colored spectacles. The tales we hear from patients, that they have been in dark rooms for months, are either exaggerated or show that they were under bad advice, and this advice is usually found to come not from physicians but from the laity.

The demoralized nervous system of these patients with hysterical retinal hyperæsthesia, is sometimes so hard to manage that it is difficult to remove the eye wraps and get them out of the darkness, and the physician will need first of all, to get such patients away from their sympathizing friends, and if he is at all doubtful as to the necessity for the seclusion of any case from daylight for a term of years, he may do well to reflect that a person might as well be struck blind at once from the entrance of light, as to drag out a miserable existence in a virtual prison, and at last die of constitutional disease.

Very many of our country villages have one or two persons, who, while in apparent health, have not got out of bed for years. These cases of hysterical paralysis, which render the subjects unable to go about, are analogous to those of hysterical photophobia, where the presence of the least light is so much dreaded.

Since reading the above paper, I am informed by Dr. Rankin that the patient is married and pregnant, and that she continues to have attacks of pain in the eyes,

AN EASY METHOD OF REMOVING ROUNDED FOREIGN BODIES FROM THE URETHRA

By E. L. KEYES, M.D.

I bring the following case before the profession, because I believe the suggestion it contains to be one possibly of novelty, certainly of value. As to the origin of the idea of using Thompson's divulsor in lieu of forceps, for the extraction of a foreign body, it may be old, but if so the fact is not well known. Personally I certainly stumbled upon it, mainly by accident, but the excellence of the method and its extensive applicability were at once apparent to me, as they must be to any one who has had any considerable experience in attempts to extract foreign bodies from the urethra.

The best of the instruments in ordinary use for this purpose are the long urethral forceps, the crocodile forceps of Mathieu, or that of Collin & Cie., and the urethral scoop of Leroy d'Etiolles; but the first three of these are very apt to lacerate the urethra more or less, by pinching up a little of its mucous membrane along with the foreign body, or during the repeated and often fruitless efforts to seize the latter, while the last instrument named is apt to damage the urethra considerably by bruising its walls against the foreign body, which it extracts by forcing it along in front of its upturned extremity.

Only a short time before meeting the patient, whose history is about to be detailed, I saw another analogous case in consultation, where a smooth, round stone had been passed from the bladder and lodged in the urethra. It filled the canal completely, and although the forceps could be easily brought into contact with the anterior face of the stone, still it was found impossible to seize the latter, and after many fruitless attempts, in which considerable blood flowed from lacerations made in the mucous membrane, it was finally found necessary to incise the urethra in order to extract the stone. A fine probe was easily insinuated beyond the obstruction in this case, and nothing would have been easier than to have followed a tunnelled divulsor over a guide past the stone, and to have thus extracted the latter, had the idea occurred to any one present, which it did not.

Other instances come to mind; but a self-evident fact requires no labored demonstration, and that a new and simple means of extracting foreign bodies from the urethra is a desideratum none will deny.

My case occurred at the end of August, 1874. Shortly afterward, while looking over a report read before the Georgia Medical Association, in April, 1874, by Dr. Westmoreland, Prof. of Surgery in the Atlanta Medical College, on "Thirty-seven Cases of Urinary Calculus" (*Atlanta Medical and Surgical Journal*, Oct., 1874, p. 415), I was surprised to notice that this gentleman had removed three small calculi from the urethra of a patient with Thompson's divulsor—introducing the instrument the first time, however, not with a view of removing the stones, but for the purpose, it seems, of dilating a stricture which detained them in the urethra. The case, in brief, was that of an old man, who had undergone external perineal urethrotomy for organic stricture at Dr. W.'s hands. The patient had before passed gravel, and continued to do so readily enough while he kept his stricture mechanically dilated. Discontinuing the use of his instrument, however, some gravel-stones came down and were arrested by the stricture. Stone could be felt through the integument, and was easily recognized by a sound passed through the stricture. For several weeks attempts were made to dilate the stricture so as to allow the stones to pass, but to no purpose. Finally, a Thompson's divulsor was introduced through the stricture, screwed open, and on being closed and removed, was found to have two gravel-stones between its blades. The doctor immediately reintroduced the instrument, opened it, and safely extracted another small stone.

Thus the priority in this manœuvre belongs to Dr. Westmoreland, or, perhaps, to another, although I have read of no similar case elsewhere. I adopted the same expedient, however, ignorant that it had been practised before.

My case needs no further comment beyond its report.

Dr. X——, 35, a practitioner in a neighboring town, married, and the father of healthy children, had renal colic five years ago, which terminated in sudden relief. He was not aware of passing any stone by the urethra. Three years and a half ago he had another similar attack, but could detect no stone in the urine voided. Two months before I saw the patient, he suddenly got retention without any previous diminution in the size of the stream of urine (he had never suffered from gonorrhœa). Retention lasted nine hours. A physician passed a catheter, but did not reach the bladder. On withdrawing the instrument the urine flowed spontaneously. Retention recurred with overflow, and relief was only obtained by again resorting to the catheter, although the latter again failed to enter the bladder.

During the two months there was continual trouble in urination. Sometimes the water would come in a small stream, more or less interrupted in a sudden manner, sometimes it would not flow at all for a time.

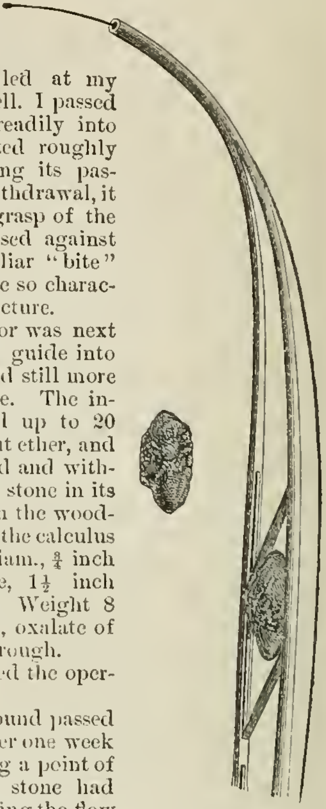
After seeing another physician, who diagnosticated tight organic stricture, the doctor came to New York and consulted Dr. E. A. Maxwell, who passed a whalebone filiform guide into the bladder, felt the grit of the stone on its passage, and referred the patient to me.

I introduced a blunt steel sound down to the point of obstruction, at the triangular ligament, but not encountering any gritty feel, I concluded there was some fleshy obstruction to the passage of any calculus the urethra might hold. I decided, therefore, that the latter must be stretched, and sent the patient home to prepare himself by an alkali, etc., for the operation. On the next day but one, he called at my office with Dr. Maxwell. I passed a whalebone guide readily into the bladder. It grated roughly along the stone during its passage. On attempting withdrawal, it was retained in the grasp of the urethral muscles pressed against the stone in that peculiar "bite" which is believed to be so characteristic of organic stricture.

A tunnelled divulsor was next easily passed over the guide into the bladder. It grated still more roughly past the stone. The instrument was screwed up to 20 (10 mm. diam.) without ether, and immediately unscrewed and withdrawn, containing the stone in its grasp as represented in the woodcut. The dimension of the calculus were $\frac{5}{8}$ inch long, $\frac{5}{16}$ diam., $\frac{3}{4}$ inch shorter circumference, $1\frac{1}{2}$ inch longer circumference. Weight 8 grains. Composition, oxalate of lime. Surface, very rough.

Entire relief followed the operation.

A full-sized blunt sound passed readily into the bladder one week subsequently, detecting a point of tenderness where the stone had been lodged, and causing the flow of a little blood, but not meeting any obstruction like a stricture. The patient remains well.



Stone, of natural size, showing position in which it was caught by the divulsor.

Although rough, the stone was rounded, and I think it probable that no rounded object in the urethra can escape slipping above or below the narrow blade of a divulsor, which happens to be pressing against it in dilating the canal, and finally becoming lodged between the two blades, to be caught securely by them as they spring back on relaxing the screw; and this without any danger of the mucous membrane being pinched. It would be better if the divulsor used for extracting foreign bodies had but one cross-bar.

If the foreign body were a stone fragment impacted in the urethra after lithotrity, it might have angles which would scratch the urethra during removal; but this objection would hold with more than equal force against any other form of forceps, for the blades of the divulsor shield the urethra very well.

Further trials of the tunnelled divulsor as a forceps for extracting foreign bodies from the urethra will soon establish its relative merits or defects as compared with other instruments. It promises excellently.

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Honor to a Physician.—Dr. Evan Pierce, J. P., County Coroner and five times Mayor of Denbigh, has lately been the recipient of an honor seldom accorded to living men. The foundation stone of a column to be erected in Denbigh by public subscription, in honor of Mr. Pierce, was laid. The column is to be ninety feet high, and is to be surmounted by a statue of the doctor. The cost of the whole being £1,000.

CASES FROM PRACTICE.

By J. G. PINKHAM, M.D.,
OF LYNN, MASS.

I. SECONDARY UMBILICAL HEMORRHAGE.

The child, a male, was quite vigorous at birth, and apparently sound in structure. The father was of scrofulous constitution. The mother was chlorotic in appearance, and had been for many years a victim of chronic uterine disease.

During the first few days of its life, the infant passed the meconium naturally, made water, and vomited slimy matter once or twice. It was never able to keep any kind of food on its stomach long. Its mother's milk, which it took with an apparent relish, would, in a short time be returned liquid, and of a bright yellow color. After the evacuation of the meconium, no passage from the bowels occurred worthy of being mentioned. Injections brought away nothing, and medicines were speedily ejected from the stomach. All the means used failed to arrest the vomiting. The skin gradually assumed a saffron hue. The cord came away naturally on or about the seventh day, and the navel healed perfectly. On the ninth day the nurse directed my attention to a little stain of blood on the navel. I took little notice of it, but ordered her to apply some tannin. This was done. The mother complained of the nurse for handling the child roughly, and thought she had injured it. Early the next morning the bleeding was discovered to be profuse, and I was sent for. I packed the umbilical depression with cotton-wool, soaked in a saturated solution of Monsel's salt, covering it with a compress and bandage. This controlled the hemorrhage at the time, but it soon recurred, and I reapplied the styptic with a like result. The third time I cauterized the bleeding surface, applied the styptic, and made pressure as before. Being obliged at this juncture to leave town, I gave directions for the nurse to keep careful watch, and if bleeding recurred to call another physician. It did recur, and the case fortunately fell into the hands of my friend Dr. Webster, who, recognizing the futility of the other methods that had been tried, applied the ligature, transfixing the end of the cord with two cambric needles, and tying beneath. I found on my return that there was still some oozing of blood, and reapplied the ligature. No more bleeding occurred, but the vomiting continued, the ejected matter becoming green like the fæces which infants pass in certain conditions of gastro-intestinal disturbance. The child became much jaundiced, and wasted away, dying on the evening of the thirteenth day. Neither the ligature nor the needles had been disturbed.

Autopsy one hour after death, Dr. Webster assisting. Body shrunken, yellow; abdomen hard, particularly in neighborhood of umbilicus. Bulging beneath the ligature. Parts above fœtid. Cord unshrunken. Veins and arteries distended with a firm clot, reaching back to liver in vein, and to fundus of bladder in arteries. Blood effused into substance of cord, and beneath its sheath, extending laterally over abdominal walls from the deflection of the umbilical vein towards the liver. Peritoneal investment of small intestines, and mesentery intensely congested. Intestines below duodenum shrunken and nearly empty, but pervious. Moderate fæcal accumulation in cæcum; colon looks like a whipcord. Stomach distended, with thin, green liquid like that vomited. Its mucous membrane apparently healthy. Duodenum partially distended. Its mucous membrane red, thickened, ulcerated. Mucous lining of jejunum and ileum reddened. Gall-bladder and duct distended with bile. Biliary duct pervious. Right lobe of liver several times larger than left ;[*] firm, yellow on section, mottled in portions, like the so-called nutmeg liver. Left lobe apparently healthy. Foramen[†] ovale patent. Other viscera normal.

II. DISTENTION OF BLADDER MISTAKEN FOR ASCITES—SEVEN QUARTS OF URINE DISCHARGED AT ONE TIME THROUGH CATHETER.

I. A., aged 67, small in stature and thin in flesh. Family strongly predisposed to diseases of the brain and nervous system. About a year ago he injured his back while taking care of a sick person, and subsequently had more or less pain in that region, with a general failure of health. Several months before my attendance he began to be troubled with incontinence of urine, and a gradual enlargement of the abdomen, which his friends ascribed to an increasing obesity. The incontinence was not of long continuance. The first physician employed did not announce a diagnosis of the case, but gave vegetable diuretics and tonics, with the effect of aggravating the symptoms. The second was a female clairvoyant, whose manipulations were so vigorous and ineffectual for relief as to greatly disgust the patient. The third was an experienced and skilful physician, who pronounced the case one of ascites, and gave drastic cathartics and diuretics. The fourth was a miracle-worker, who directed his attention wholly to the head, rubbing it in such a way as to bring out a copious furuncular eruption.

I first saw the case on the 6th of April. The poor man was then suffering almost beyond endurance with distress and pain in back and abdomen. The latter was very prominent, as much so as we often see it in ascites, though with less fulness at the sides. He was passing an average quantity of urine, clear and non-albuminous; attempts at micturition frequent. Appetite poor. Tongue red and ulcerated. Bowels moved with great difficulty. During the night he was delirious and slept poorly. He gave evidences of failing brain power in deficiency of memory and general mental weakness. Frequent spasmodic twitchings of facial and other muscles. An examination of the abdomen showed plainly that the enlargement was due to liquid, and I was led to conclude that it might be a case of retained urine, rather than ascites, by the following circumstances:

1. The shape of the abdominal swelling was pyriform, something in appearance like that of a pregnant woman at the ninth month, the most projecting point being between the umbilicus and ensiform cartilage.

2. On palpation the fluid seemed less near the fingers than in ascites, the walls of the tumor felt thicker and firmer than those of the abdomen alone.

3. When the patient was turned on his side, the whole tumor fell over slightly, but there was no filling out of the loin as in ascites.

On attempting to verify or disprove my diagnosis by using the catheter, I found myself unable to pass the one from my pocket-case. The urethra was very irritable, the patient being thrown into nervous tremors and giving signs of pain as soon as the instrument entered the meatus. On my next visit I carried a series of gum-elastic catheters, but could not introduce even the smallest, so violent and continuous was the urethral spasm. Under ether, however, the spasm relaxed, and I introduced a No. 6 gum elastic, drawing off seven quarts of clear urine, the bladder not appearing to be fully emptied then. Subsequently I passed the same catheter without ether daily, the sensitiveness of the urethra gradually diminishing. The daily amount of urine was not less than two quarts. The effect of this evacuation of the bladder upon the patient's condition was marked. His appetite improved, and his nights became tranquil. The pain in the back nearly disappeared. He remained comparatively comfortable, though with a constant failure of strength, until his death on the 26th of April. No autopsy was made.

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[*] At birth the difference in size between these two lobes of the liver is inconsiderable.—*Carpenter's Human Physiology*, page 797.

[†] For a thorough exposition of the subject of secondary umbilical hemorrhage, the reader is referred to an excellent article by Dr. Francis Minat, of Boston, published in the *American Journal of the Medical Sciences*, October, 1852, and to the elaborate report of Dr. Jenkins, of Yonkers, N. Y., to The American Medical Association in 1853. The latter may be found in the Transactions of the Association for that year.

Remarks.—The great distention of the bladder in this case can only be understood by considering the length of time required for its development. Its starting-point was probably partial paralysis of the organ, leading to incomplete evacuation, and for a time to an involuntary overflow. The latter was stopped by the supervention of an irritable condition of the urethra, by reason of which spasmodic stricture occurred whenever the urine entered it. This stricture yielded only when the pressure from the accumulated urine became excessive, and was aided by the voluntary efforts of the patient, returning when a certain amount of urine had been voided. Thus through a series of months the bladder kept enlarging until it reached the capacity mentioned. The large amount of urine drawn from the patient daily after the first evacuation, was probably due to the fact that his diet was largely liquid.

III. DOUBLE ANEURISM OF AORTIC ARCH—DIAGNOSIS CONFIRMED BY AUTOPSY.

Mrs. B., aged forty-seven, housewife, came under my care on the 3d of Feb. last, suffering from a chronic malady, which was supposed by her friends to be consumption. She gave me the following history of her illness: She was naturally of a robust constitution and belonged to a healthy race. Four years ago she had an attack of "lung fever," so called by her physician, affecting the left side, and attended with rusty expectoration. Ever after that she was in delicate health, having at times cough and difficult breathing. About two years ago a small pulsating tumor appeared above the left clavicle, and at the same time her left arm was affected with a partial paralysis, numbness, pricking, and other abnormal sensations. The tumor gradually subsided, and the arm regained its natural condition, except that its pulse at the wrist was absent. Condition at date of first visit: Body fairly nourished. Appetite variable. Her most prominent symptoms were paroxysms of dyspnœa, with troublesome cough and expectoration. When the breathing was difficult there was marked stridor and the countenance became dusky in hue, and anxious in expression. Sputa often tinged with blood. Left radial pulse could not be found; right of fair strength; not notably changed in rate from the normal. Percussion revealed nothing abnormal in chest except slight dulness between second and third ribs on left side. Auscultation revealed abundant moist mucous râles on both sides, obscured somewhat during paroxysms of dyspnœa by the stridor. On right side of sternum, between second and third ribs, there can be heard a double murmur—modified heart-sounds—accompanied with a distinct thrill. Pulsation and thrill can be felt over the same space by the hand. With these signs and symptoms the diagnosis of thoracic aneurism, with chronic bronchitis, was easy. The supposition of an obliterated aneurism on the left side, with a more recent one on the right, seemed necessary to a full explanation of her condition.

Treatment for chronic bronchitis nearly banished her cough, lessening also the frequency and severity of the dyspnœa. Various remedies were tried for the dyspnœa, but the tincture of stramonium in ten-drop doses, *pro re nata*, gave the most relief. About the 24th of March she took cold, as she thought, her cough returning, accompanied with profuse expectoration, and pain through right chest, shoulder, and arm. For one or two days the sputa was rusty, precisely as in pneumonia. The pulse was increased in rate, and the temperature moderately elevated. These symptoms partially subsided, but the dyspnœa progressively increased, causing great suffering until her death on the 31st of March.

Autopsy nine hours after death, Dr. S. S. Graves assisting. The result fully confirmed the diagnosis. There was an old aneurism of the arch on the left side just below the origin of the subclavian, passing upon the latter so as nearly to obliterate it; size, that of a turkey's egg. Interior consisted of concentric layers of fibrine, but partially decolorized, and readily separating. Symmetrically located on the right side, and of about the same size, was a recent aneurism, but few layers of fibrine having been deposited around its walls. Its cavity was loosely occupied by a fibrinous clot, nearly white, which sent a rope-like prolongation, some six inches in length into the heart, terminating in a ragged extremity, by which it was clinging to the valves, tendinous cords, and carneous columns. The lungs were perfectly healthy as far as could be discovered, except that one or two small patches on the free border of the right appeared collapsed. Bronchi not examined. Heart normal.

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A CASE OF EPILEPSY (NIGHT FORM), TREATED WITH BROMIDE OF POTASSIUM, AND THE RESULTS.

By JAMES GILLIAM LA ROE, Jr., M.D.,

GREENPOINT, L. I.

On the 1st of November last I was called to Miss R. J., aged about sixty. I found her very much prostrated, her pulse being 156, hardly perceptible, and semi-comatose as regards intellect.

On inquiry I learned that my patient was a life-long victim of epilepsy, and that for the last few years she had at least one fit a week, and very often two. They were of the *haut mal* form, occurring always at night. For the three nights preceding the day I was called she had had four fits. As a result her intellect was considerably clouded, and what history I obtained of her past life came from her relatives.

Stimulants were plainly indicated, so quin. sulph. gr. iij., and ammon. carbon gr. i., were given every three hours. Brandy, in the shape of milk-punch, was given in large doses during the day.

November 2d. Under the above treatment pulse fell to 108, with increasing vigor, both as to mind and body. Our patient answered questions put to her a little more readily than on the previous day, and complained of slight analgesia of lower limbs. This was the commencement of a series of hysterical phenomena, which subsequently proved very alarming to her friends.

November 3d. Increased hysterical symptoms exhibited themselves in shortness of breath, *globus hystericus*, and nervous twitchings of the muscles in different parts of the body. Just before I made my visit she called her friends to her bedside, and bade them all good-by, declaring that the time for her exit from this world was at hand. On examination her pulse was found to be 96, and pretty strong. The tonic and stimulant plan had been kept up unremittingly, doing noble duty, save for the fact of promoting hysterical symptoms, which, as intimated before, grew very alarming to her friends. I was implored to relieve them, and thereby found myself in a quandary. A few years ago, and not very many either, there came a time in my life which comes to all would-be graduates sooner or later. I refer to the writing of that all-important article yclept a "Thesis." Mine was on "Bromide of Potassium," and with no experience to guide me I could merely echo the words of my teachers. I refer to two sentences particularly. In speaking of the use of the drug in epilepsy, I wrote:

"From its effect of producing anæmia of the brain we can readily perceive how useful it would prove in the day form of epilepsy, where there is marked congestion. Of course it would be suicidal to give it in the night form, wherein the condition of the brain is anæmic."

I had for my authorities Profs. Flint and Hammond. Roberts, of London, in his "Practice of Medicine," is clearly of that opinion. Hence my quandary. But there was no time for delay, and as the patient had been treated very lately without effect, I concluded to yield to the desires of her friends and address my remedy to the hysterical condition alone. I then ordered 40 grains of the "bromide of potassium" to be given every three hours, and this alone.

November 4th. Patient much quieter this morning. Had a good night's sleep. In order that the hysterical symptoms might not return, the drug was ordered continued. Pulse 84.

November 5th. Everything progressing finely.

November 6th. I made my last consecutive visit, and, by way of experiment, ordered the drug to be given until a rapid return of the epilepsy would call for its withdrawal; to be given three times a day instead of every three hours.

On the night of December 19th, *about seven weeks after her last fit*, Miss R. J. had another. There could be no mistake, for her friends heard the usual cry and the pillow was found to be bloody. An examination of the tongue showed considerable laceration.

Considering that quite a victory had been gained, I ordered the "bromide of potassium" to be continued. Up to date there has been no subsequent fit. Her friends notice a brighter intellect also. Should another fit occur shortly, and there would be nothing strange in such an event, I shall order the drug to be given in drachm doses three times a day, and so on *ad libitum.*

In conclusion, I would state that this communication is claimed to be in nowise original. It is merely given as a matter of clinical record. Without doubt other physicians have proven the theories advanced by the different authorities to be incorrect in the premises, and so have acted accordingly. Admitting this, additional evidence can surely do no harm.

107 Huron St., *Jan.* 25, 1875.

Mr. Holloway, of pill and ointment notoriety, is reported to have purchased an estate with a view to establishing a college for women which will be capable of accommodating four hundred. The grounds have cost £25,000 and the cost of the building is estimated at £175,000.

Progress of Medical Science.

The Antagonism between Medicines.—The following extracts are taken from a report of a committee of the British Med. Association, detailed to investigate the antagonism of medicines, by J. Hughes Bennett, M.D., chairman.

Sulphate of Atropia and Meconate of Morphia.—In this investigation eighty-one experiments were performed on rabbits and dogs. The experiments on rabbits were summed up as follows:

1. Sulphate of atropia is physiologically antagonistic to meconate of morphia, within a limited area.

2. Meconate of morphia does not act beneficially after a large dose of sulphate of atropia, for in these cases the tendency to death is greater than if a larger dose of either substance had been given alone.

3. Meconate of morphia is not specifically antagonistic to the action of sulphate of atropia on the vaso-inhibitory nerves of the heart.

4. The beneficial action of sulphate of atropia in cases of poisoning by meconate of morphia is probably attributable to the action which the former substance possesses of contracting the blood-vessels, and thus diminishing the tendency to cerebral and spinal congestion produced by salts of morphia.

The experiments on dogs showed that sulphate of atropia modifies the physiological action of meconate of morphia, and may even save life after a fatal dose of the latter. The limit, however, is so narrow as to be of no practical value.

Tea, Coffee, Theine, Caffeine, Guaranine, on the one hand, and Meconate of Morphia on the other.—In this investigation one hundred and seventeen experiments were performed.

1. Theine is antagonistic to meconate of morphia inasmuch as the action of the one substance modifies that of the other, and may even save life from a fatal dose of either substance.

2. Meconate of morphia delayed the appearance of the convulsions characteristic of the action of theine; but, on the other hand, theine, if given in large doses, did not affect in a marked degree the action of meconate of morphia, because symptoms of poisoning by theine were soon manifested.

3. Further experiments on cats showed that (*a*) while a cat may recover from the effects of a dose of 1$\frac{3}{4}$ grains of meconate of morphia given alone, it will not recover from the effects of a dose of 2 grains, even although the effects of the latter dose are modified by those following the introduction of 4 or 5 grains of theine: (*b*) that in three cases the animals recovered from the effects of 1$\frac{7}{8}$ grains of meconate of morphia and 4 to 5 grains of theine, while they died when the same dose of meconate of morphia was administered eight days afterwards; (*c*) that, when the dose of theine was increased beyond 5 grains, the animals invariably died, apparently from the effects of theine.

4. Experiments on rabbits, as to the antagonism between meconate of morphia and theine, were found to be unsatisfactory as regards the purposes of this inquiry, because both drugs produced epileptiform convulsions in these animals.

5. The results obtained in investigating the action of caffeine and guaranine as antagonists to meconate of morphia were similar to those observed with reference to theine.

6. Experiments were made on dogs to ascertain the effects of strong infusions of tea and decoctions

of coffee as antagonists to meconate of morphia. These were unsatisfactory, chiefly because the tea or coffee was usually vomited so soon as to prevent the possibility of the exercise of any physiological antagonism. At the same time it was observed in several instances that the administration of tea or coffee so excited the animals as to prevent them from falling into stupor or coma after a dose of meconate of morphia, which would have produced this effect had the tea or coffee not been given.—*British Med. Journal*, Jan. 23, 1875.

Case Illustrating the Value of External Examination in Midwifery.—The patient whose history is here related was 27 years of age, and had been confined three times previously, losing much blood at each confinement, and suffering during the last one from excessive flooding. Dr. Giles, the physician who reported the case, was called to see her early in the morning, after she had been in labor about six hours. The pains were frequent but not efficient, and he observed that she was much larger than most women are at term. The os was found high up, the size of a florin, and dilatable. The presenting part did not engage; it had the shape of the cranium, but felt soft like the breech. A hand or foot could also be felt. The vulva and vagina were œdematous, and there was a semi-elastic swelling, the size of a walnut, on the floor of the vagina. On external examination the fœtal heart was found beating about two inches below the navel, and to the left of the median line. To decide as to whether there was more than one child, the doctor resorted to palpation through the abdominal walls, by which he satisfied himself that there was but one, and he also made out that the position was either the second or fourth cranial. After an hour he applied a binder and ruptured the membranes. He then found a second bag of waters, and a fourth position, complicated by a presentation of the left hand. Holding the hand back during four pains, it then remained above the head. A great deal of liquor amnii escaped with each pain; the head did not advance, and the vaginal tumor increased. Later, the head was found to have receded. He therefore applied Barnes's forceps, and easily brought down the head until it reached the tumor. This he divided with a knife, and turned out a clot. The slight hemorrhage was easily checked by pressure of the finger, and the delivery of the head completed with the forceps. The subsequent history of the case presented no features of special interest, and the patient made a good recovery. The points of interest, in the reporter's opinion, were: 1st. The existence of two distinct bags of water, which was verified on examination of the placenta, and which caused doubt at first as to the particular presentation. 2d. The value of external examination in removing this doubt. 3d. That it was good practice to incise the tumor and turn out the clots, instead of waiting for its rupture by the descending head.—*Obstet. Journ. of Gt. Brit. and Ire.*, January, 1875.

Treatment of Certain Tumors by the Subcutaneous Injection of Alcohol.—Schwalbe, of Weinheim, has reported one hundred cases of various forms of indolent glandular swellings treated successfully by the subcutaneous injection of the tincture of iodine. Latterly he has used injections of simple alcohol in fifty similar cases, and has found the results equally favorable, and the time required for a cure no greater, and he therefore concludes that the alcohol is the essential remedial agent. He explains its curative action as follows: It establishes a state of chronic inflammation in the connective tissue, causing it to contract by degrees, and thus pressure is brought upon the vessels and the lymphatics are obliterated. These effects, and the consequent hardening of the connective tissue, he proposes to utilize in the treatment of other tumors, and he reports the cure of fatty tumors by the use of such injections, to which some ether was added in order to dissolve the fat. He finds, however, the most important application of his plan in the treatment of cancer, by preventing its extension to the neighboring tissues and lymphatic glands. The tumor is first to be isolated, as it were, by causing the connective tissue on all sides of it to become shrivelled; then, the contracting connective tissue, approaching the growth itself, presses upon it, cuts off its blood supply, and so causes it to disappear by atrophy. Lymphatic glands which are already affected are to be similarly treated. Schwalbe, with Dr. Hasse, claims to have cured three cases of cancer of the breast in this way.—*Sitzungsbericht der niederrhein. Gesellschaft in Bonn*, 1874.—*Allg. med. Central Ztg.*, Jan. 23, 1875.

Indications for Artificial Rupture of the Membranes.—The following conclusions are drawn by Hugenberger, of Moscow, from a careful analysis of the cases in which this procedure was adopted in 10,482 confinements occurring at the St. Petersburg Lying-in Hospital. He considers that the early rupture of the membranes is to be recommended as a powerful oxtocic agency, except in cases of hemorrhage, and advises the practice of it even when the os uteri has opened no more than one and a half finger's breadths. He believes that this rule is applicable in the following cases: (1) With multiparous women, especially such as have been pregnant more than three times, if the dilatation of the os is not retarded by feeble pains; (2) in primiparæ generally, where the pains are normal but the os dilates too slowly, and the membranes remain for a considerable time tightly drawn over the head, without intervening fluid; (3) if the presenting head does not adapt itself to the pelvic inlet, though the pains are regular and the pelvis normal, the uterus continuing soft and not forcibly contracting upon the child's body; (4) where the liquor amnii is abundant, the lower portion of the uterus broad and soft, and the fœtus presents by one or other extremity, but does not promptly engage in the inlet. Prolapse of the cord or of the extremities should be carefully guarded against, and to avoid such an accident, it is advised that the woman be placed on her side while the membranes are broken, and then that light pressure be made on the fundus, so as to force the presenting part towards the inlet. The same object may be accomplished by puncturing the membranes with a sound at a higher level, by which the liquor amnii will drain off; (5) when, in case of twins, with a longitudinal presentation of the first one, there is inertia of the uterus from excessive distention and the dilatation of the os ceases; (6) when the labor is thus delayed in case of a dead fœtus. On the other hand, early rupture of the membranes is contraindicated in excessive and convulsive pains, in case of resistance of the soft parts, where the os is rigid, unyielding, and turgid; in transverse presentations, and those of the face and forehead; in the so called posterior chin and occiput positions of the fœtus; in contracted pelvis, when the lips of the os uteri are lax and dependent, and when the soft parts are not distended by the liquor amnii; in case of pressure upon the superior portion of the cervix by large parts of the child, and finally, when the cervix is caught between the child and the anterior wall of the pelvis.—*St. Petersb. med. Zeitschr.*—*Memorabilien*, 6, 1874.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE UTILITY OF MEDICAL LEGISLATION.

THERE is a great deal of difference of opinion in regard to the utility of legislation on medicine. Not so much as there has been in times gone by, it is true, but still enough to give the subject a very unsettled aspect. If we attempted to interpret professional sentiment in regard to matters of legislation in general, we believe we should count a large majority on the side of the opposition. Those who have faithfully studied the effect of laws enacted either for the benefit of the community, or for the benefit of the profession, are pretty thoroughly convinced that, far from making any tangible progress towards much-needed reforms, we have taken very many backward steps.

The history of the labors of the State Society in such a direction is a melancholy proof of the truth of the assertion, and its efforts to shake itself entirely from any dependence upon the Legislature, carries with it a moral which should not be unheeded by other organizations, who are more or less sanguine of the good results of prospective laws regulating the practice of physic in the different States. Several bills having the latter object in view are before the different Legislatures, and although they are all intended to protect the community against quackery, are in the main judiciously framed, we cannot resist the conviction that if they pass at all, most, if not all of them, will be practically inoperative.

Setting aside the strong probability that the acts will be constantly subject to repeal, and to the incorporation of modifications more ruinous to our interests, than if we had no legal enactments at all, we can hardly expect to be in a position to enforce the provisions of the bills, or to mete out justice to offenders. In all our efforts to regulate the practice of medicine, we place ourselves in a very anomalous position towards the community. We take every pains and use every effort to protect the people against the evils of quackery, oftentimes against their will, and then shoulder ourselves with the responsibilities of enforcing the law afterwards. Evidently there is very little, if any, sympathy exercised towards us in such endeavors by the very people for whose benefit the law was originally framed. As far as we ourselves are concerned, the task is not only a thankless one, but is in its ultimate results so far from being satisfactory, that it tends to dishearten the most enthusiastic committee, or to render nugatory the best directed labors of the most faithful and conscientious board of examiners.

In the case of the present law now in operation throughout this State we have an example. As a law, it virtually, so far as any good results to legitimate practice is concerned, amounts to nothing. The censors of the County Societies are empowered to summon all those who have no diplomas or licences to appear before them for examination. Unless these men pass an examination before these boards they have no legal right to practice. But it must be recollected, that this law gives the same privileges to eclectic and homœopathic societies, the members of which are legally entitled to practice the dogmas of their respective schools. If an applicant fails to pass one board of censors, there is nothing to hinder him from applying to the others. In fact, this is repeatedly done, and a special bid is made for these examinations by the eclectics, who openly advertise for all who may have been rejected by the other boards. If any of the lame ones fail in spite of these splendid offers to succeed, it is their own fault, and not that of the obliging board of "eclectic" examiners.

This is the case when, on the part of the censors of the County Societies, every means is taken to give impartial examination, and thus to carry out the letter and spirit of the law. When we reflect that all this labor is gratuitous, that the time of some of our best and busiest men is taken up by any one who chooses to apply for an examination, we cannot help thinking that we have taken upon ourselves a very thankless task.

Not only do we work hard to enforce the law, but we are expected also to defend encroachments upon it, as if the said law was for our benefit alone. If a malcontented and defeated candidate chooses to practice, in spite of the protest of the censors, who is to bear the burden of a lawsuit? The community quiet their consciences in regard to this matter by assuming that it is no more than right that those who are so specially interested in the law should be the ones who should discharge this responsibility. As it is with the law of our State, so it will be with the similar laws in other States. If we wish to accomplish anything we must do it ourselves, and even then we are pretty sure to fail.

The whole difficulty in making the different laws effective rests in a proper want of understanding on the part of the community. We can never expect to accomplish anything until we convince the people that these laws are intended more for their protection than ours. A learned profession should be above making any requests for legislative acts to benefit itself. If it cannot stand on its own merits, it has no claim whatever even to ordinary respect. Any effort to force such a consideration by a legal enactment is not only absurd, but positively ruinous. Our office is to protect the people as much as possible against quackery. If the community do not care to properly interpret these intentions, that is no concern of ours. Practically speaking, the people are not prepared to appreciate our motives, and will never be, until they are sufficiently educated to draw the line between quackery and legitimate medicine. When that time comes, there will be no difficulty in having suitable laws passed, and the people will themselves take the proper steps to punish any offenders.

If we must legislate at all, let it be in the direction of improving ourselves. There is a great deal that can be done in this direction. Our college regulations can be made more stringent, our standard of preliminary requirements raised, our terms of study extended, and, in fact, the whole system of medical education can be remodelled. By restricting our efforts to such reforms, we can at least prevent quacks and incompetent persons from coming into our own ranks, and this should satisfy us for the present.

OUR COMMENCEMENTS.

The Medical Colleges in New York have graduated a larger number of students than ever before, and it is the uniform testimony of the professors that the examinations were very creditable. On looking over the catalogues it is very encouraging to notice the increased proportion of those who have the degree of Bachelor of Arts. This is certainly a subject for congratulation, and speaks well for the future medical man. New York, too, has proved itself entitled to the reputation of the centre for medical teaching. The Commencements, instead of being the occasions of a dry lecture and the presentation of diplomas, are now made attractive by addresses from eminent speakers, fine music, and all the other pleasant accessories which go to make up first-class entertainments. The awarding of numerous prizes is also a notable feature, and is no mean incentive to extra diligence on the part of the students.

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Philadelphia Medical Schools.—A correspondent of the *Med. and Surg. Jour.*, says that the faculty of the University, still lacking funds for the completion of their plans, are making an effort to obtain an additional grant from the Legislature of $125,000, and promise to raise a like movement by subscriptions. The Jefferson College subscription fund has already reached $100,000, which entitles the college to an equal sum from the State. No movement, so far as is known, has been made as yet by the latter school, toward an application of the fund.

Reports of Societies.

NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY.

Adjourned Stated Meeting, February 2, 1875.

The President, Dr. Meredith Clymer, in the Chair.

The special order was a paper on "Partial Paralysis and Want of Coördination from Irritation of the Genital Organs," by Dr. Lewis A. Sayre.

Dr. Sayre referred to a paper "On Reflex Paralysis, caused by Congenital Phymosis and Adherent Prepuce," which he had presented to the American Medical Association in 1870. He read extracts from letters received from Mr. Barwell, of London, Dr. Pitcher, of Detroit, and others, confirming the views therein set forth, and relating similar cases coming under their observation, but the nature of which, until then, they had not understood. So many like cases, he said, had since then come under his notice, that he thought it proper to bring the subject again before the profession more fully, as he was satisfied there were many grave affections of the nervous system attributable to this cause, whose nature has not as yet been suspected. He had no theory of explanation to offer; and he hoped that some light might be thrown on the subject by the members of the Society. It had seemed to him that in many cases an anæmic condition of the spinal cord obtains, as some of the patients lose entire muscular power, even the power of speech, in the erect posture, and yet, lying on the back for a little time, they recover the power of speech and motion.

Eight cases were then related among both sexes, illustrating the peculiar effects of continued irritation of the genital organs, such as retention of urine, general motorial paralysis, paraplegia, complete and partial, paralysis of the special senses, spasms, clonic and tonic, idiocy, etc., etc. The most marked peculiarity of all these cases has been that almost immediate improvement, without any mechanical contrivance to correct the deformity, on relieving the genital irritation, would happen directly; decided improvement would sometimes be noticed within twenty-four hours, and in most, complete recovery in the course of a few days.

And in view of the absence of those members of the Society who were best able to discuss this interesting question, as well as to make further case contributions, he would suggest that the discussion on the paper be made the order at a subsequent meeting. He had not himself seen cases similar to those mentioned by Dr. Sayre, but he had, since his attention had been first called to the subject, some twenty years since, seen a great variety of nervous troubles, both of motility and sensation, unquestionably ascribable to continued irritation of some one of the genital organs, and that in both sexes, and at all ages. Many persons had been sent to him for treatment, suffering from more or less loss of motor power, and with increased, lessened or perverted sensation, supposed to be from some disease of the nerve-centres, in which he had found the origin of the symptoms either in the urethra, bladder, uterus, ovaries, or external genital organs of the female. On the removal of the local trouble, the nervous troubles disappeared without special treatment. In stricture of the urethra this was a frequent state of things. He had seen many cases which had been treated for diseases of the spinal cord unsuccessfully for a long time, in which the paresis and anæsthesia—a hyperæsthesia—disappeared as soon as the stricture was cured.

With regard to the nature of the disease, Dr. Sayre had said that he had no theory to maintain: he was not prepared to say whether there was anæmia or hyperæmia of the cord. Now he (Dr. Clymer) had serious doubts whether the morbid expressions were due to either condition. That either one or the other existed there was no proof; and there was much in favor of a belief that the vascular system of the cord and its coverings was not concerned, or if so, only secondarily. He believed that the present tendency to implicate the circulation of the cord or brain, or their membranes, in the pathogeny of so many of the functional diseases of the nervous system was an error. He thought that in such cases the nerve-cells, sensory and motory, were themselves in fault; that the irritation impinged directly on them. He thought in the class of cases just mentioned by Dr. Sayre, this was shown by the rapidity of the disappearance of the nervous troubles after the peripheral irritation had been removed.

After some remarks by Dr. Farnham and others, the discussion was adjourned to March 15th.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Feb. 10, 1875.

Dr. F. Delafield, President, in the Chair.

POISONING BY ACONITE—TEMPORARY BRIGHT'S KIDNEY.

Dr. Blake related the case of a lady who had been poisoned by aconite. She drank about a drachm of the tincture mixed with equal parts of chloroform. The characteristic symptoms of the poison came on in the course of half an hour, notwithstanding the greater part of the contents of the stomach had been evacuated by the use of the stomach pump within fifteen minutes after the accident. She soon became insensible, and the pulse and respiration ceased. Life was maintained for three hours by the use of a powerful battery, and by the employment of oxygen gas in equal parts with common air. At the end of three hours there was a faint perception of the pulse. The prolonged effect of the poison upon the action of the heart was quite remarkable, but an explanation was seemingly offered for such a phenomena by the condition of the urine. That secretion was found loaded with albumen and contained fragments of casts. This condition of things was thought by several gentlemen to indicate a chronic disease of the kidney and to increase the gravity of the prognosis. An examination of a second specimen of urine presented the same appearances. After this, however, the most careful examination of the secretion failed to discover anything abnormal. The patient recovered, and at the time of reporting the case, it was a week and a day after the poison had been taken.

The interesting question which presented itself had reference to the possibility of the kidney trouble being merely temporary, occasioned by the irritating effects of the poison. This possibility was strengthened by the fact that the skin was profoundly impressed, there being a static congestion of its surface and the cuticle peeling off on being rubbed.

Dr. Delafield concurred in this opinion.

MALIGNANT DISEASE OF THE ŒSOPHAGUS.

Dr. E. Mason exhibited a specimen of malignant disease of the œsophagus producing stricture of that organ. It was removed from a male mulatto, aged fifty-three, and of intemperate habits. Dr. M. was called to see this patient in the Colored Home in the early part of October. He had always enjoyed good health until two months before his admission, when he commenced to lose strength and flesh very rapidly. Two weeks before that period he first noticed a difficulty in swallowing solid food, and at times it was impossible to swallow liquids. He located the obstruction in the neighborhood of the top of the sternum. At the time of his admission, when he attempted to swallow liquids, they would become arrested, the pharynx would become distended for a moment, and then the whole quantity would be regurgitated by a gagging movement.

Dr. Mason succeeded in passing a flexible, tapering bougie (scale 18), and eight inches from the beak an obstruction was met. After manipulating for a while, the instrument deviated a little to the right, and finally passed the stricture. After this an œsophageal bougie was passed into the stomach. On the withdrawal of this instrument a small quantity of frothy blood followed.

This bougie was passed once or twice a week for two or three weeks, until a No. 6 œsophageal could be used. Having apparently improved, it was determined to see if he could not swallow some solids, and at the suggestion of Dr. Thebaud, some raw oysters were given to the patient. He only succeeded in swallowing one or two of these, the remainder being returned. His strength failed rapidly after this, and he died very quietly and without pain on Nov. 22.

At the autopsy there was found a fusiform bulging of the œsophagus beginning two inches above the stomach, extending upwards four and a half inches to within six inches of the epiglottis. The circumference of this enlargement over its middle portion was five and a quarter inches. Upon section, an irregular mass was seen projecting into the œsophagus from an attachment about four inches in length, upon the posterior and left lateral walls. This mass was irregularly lobulated and rolled upon itself longitudinally, leaving a small channel through its centre. The œsophagus was also pervious to the right of, and a little anterior to, the tumor. The mass was moderately vascular, whitish in color, and of the consistency of encephaloid. When flattened out it measured longitudinally four and a half inches, and transversely three inches. Dr. J. W. S. Arnold, who had examined the specimen, pronounced it to be one of cylindrical epithelioma. Dr. A not being present, no detailed description was given of the appearances.

Dr. Delafield remarked that the specimen was interesting from the fact that the microscopical elements of the growth did not follow the type of the epithelium of the neighborhood. The specimen was then, on motion, referred to the Microscopical Committee.

ADENOMA OF THE BREAST.

Dr. Mason presented a second specimen, which consisted of a tumor of the breast, which he had removed by operation from a female patient, thirty-two years of age, a dressmaker by occupation. Eight years previous to her admission she noticed a distinct tumor in the breast, which gradually grew until the whole organ became involved. Its increase in size was most marked and rapid during the past two years. The tumor was readily movable in every direction, and the skin was not adherent. There was no retraction of the nipple, neither was there any enlargement of the lymphatic glands in the neighborhood.

She never had any pain in the breast until a few months ago, when she experienced slight twinges through the tumor. The surface of the growth had a nodular feeling, and from the history of the case a diagnosis of adenoma was made. This diagnosis was confirmed by Dr. Delafield, who made a microscopic examination of the growth. Before its removal the breast measured eight and a half inches vertically, and nine and a quarter inches horizontally.

FALSE ELBOW JOINT.

Dr. Sayre presented a curious specimen of false elbow-joint, removed post-mortem from the body of a noted performer, whose varied motions of the arm in sword exercise had often astonished his spectators.

Dr. Wyeth, who removed the specimen, gave the following description of its peculiarities:—The biceps muscle was normal, as were also the relations of the brachial artery. The brachialis anticus muscle was attached firmly to the new capsular ligament formed around the false joint. The supinator longus was attached above and below the point of fracture on the external condyloid ridge, and was adherent to the new capsular ligament. The triceps extensor was attached not only to the olecranon process, but to the new capsular ligament and broken condyles of the humerus. The ulnar nerve was between the internal fractured condyle and the olecranon, and was liable to be pressed upon in certain motions of the artificial joint. The humerus was fractured obliquely from about two inches above the external condyle to about one and a half inches above the internal condyle. The elbow-joint was not interfered with by the accident. Between the fractured humerus a strong capsular ligament was formed, to which the integument was adherent behind. Between the false joint and the elbow-joint the condyles were split from each other, and there was free motion between the two condyles. The freedom of motion in the false joint was almost equal to a ball-and-socket articulation. There was two and a half inches shortening on the injured side.

Dr. Sayre remarked that the joint would be opened at a future time for the purpose of making a careful dissection, when the results would be presented to the Society.

MORBUS COXARIUS.

Dr. Sayre presented a specimen of morbus coxarius, consisting of portions of the head, neck, and acetabulum, removed by operation from a child aged six years. The interest of the specimen consisted in the existence of two bony points or spikes, which were inserted in corresponding perforations in the acetabulum. Dr. S. suspected this condition of things from the fact that there was more than ordinary difficulty, during the operation, in luxating the limb. He accordingly separated the head of the bone by a chain-saw, and picked it out from the acetabulum. In connection with this specimen he presented a similar one, remarking that in that particular instance he had fractured the thigh in attempts at luxation. The same accident occurred in another case of his, but was occasioned by his assistant, who, by the way, was father of the child. Since the occurrence of these accidents, Dr. S. was always careful to separate the head of the bone whenever there was any amount of resistance to attempts at luxation.

ANEURISM.

Dr. Leale presented an aneurism of the descending portion of the arch of the aorta, taken from a man aged forty-one, who previous to his marriage in May last had no unfavorable symptom. Soon after he complained of pains about the head, but even these were not of much account. When Dr. Leale saw him he noticed a distention of the temporal arteries, and supposed there was a general atheromatous condition of the vessels. The patient soon after went under the care of another practitioner, and the next he saw of the case was at the autopsy. Death occurred suddenly, as the result of hemorrhage, and followed some gymnastic exercises. For some considerable period before his death he was anæmic. There was a circumscribed bronchitis, which was referable to pressure of the tumor upon the bronchus just above the bifurcation. During his lifetime he had been examined by a number of physicians, but no diagnosis of aneurism was made. At the autopsy an aneurismal tumor was discovered, not larger than an English walnut. It had ruptured through the œsophagus and had caused almost instant death by hemorrhage. The pressure of the sac upon the thoracic duct explained the anæmia which was so noticeable before death. The opening into the œsophagus was about the size of a twenty-five cent piece. The stomach was filled with blood. The tumor was almost completely filled with layers of fibrine, and the exertion which caused the rupture of the sac must have been considerable. In answer to a question, Dr. Leale stated that there had been a slight huskiness of the voice and some difficulty in swallowing.

PERICARDITIS—SIMULATED PNEUMONIA, ETC.

Dr. Delafield presented a specimen taken from a young woman, aged 27, who was admitted into Roosevelt Hospital, Jan. 29. Five days before her admission she had an attack of acute articular rheumatism. On the 29th day of January, it was noticed for the first time that there was a single systolic friction murmur, and on the next day a double friction murmur. On the first of Feb., the attending physicians changing service, the one who then came on duty added to the diagnosis of pericarditis that of double pneumonia. This latter diagnosis was based upon the existence of bronchial breathing and dulness over both lungs behind. The friction sound continued during the whole of the patient's illness. She became very sick towards the last, was very much cyanosed and delirious, and died in that condition.

At the autopsy it was found that the heart, as it lay in the thoracic cavity, occupied a much larger space than it should. The pericardium extended up to the top of the first rib, while the lateral measurements of the heart were larger than they should have been. On opening the pericardium, it was found that this increase in size was not altogether due to the accumulation of serum, but in a considerable measure to a thickening of the sac from deposits of fibrine; also to an increase in the size of the heart itself. The heart was enlarged, and there were vegetations both upon the aortic and mitral valves. Both pleural cavities contained a small amount of clear serum. The lungs were in a condition not unlike consolidation, were very much congested and œdematous, appearing as if compressed by pleuritic effusion.

The right and left lobes of the liver were considerably enlarged and congested, so that the level of the organ was to the top of the fourth rib. The other organs were congested, but otherwise there was nothing of special importance.

The principal point of interest in this case lay in the supposed existence of pneumonia. The bronchial breathing and dulness were, however, due to the compressed condition of the lung, which, in its turn, was due to the increased size of the heart, enlargement of the liver, and the accumulation of serum in the pleural cavities. The specimen of pericarditis, as exhibited, was exceedingly well marked.

HOB-NAILED LIVER CAUSED BY CONTRACTION OF HEPATIC CELLS.

A second specimen, presented by Dr. Delafield, was removed from a man 56 years old, a liquor dealer, who was admitted to Roosevelt Hospital on the 23d of Dec., 1874. The man had always been a hard drinker, for the last three years of his life an habitual drunkard, and he had been in every way a very disreputable person. He had suffered from frequent attacks of headache, loss of appetite, and dyspeptic symptoms; but had been in fair health until four and a half months before his death. At that time, according to his account, he had an attack of typhoid fever. Within four weeks after his convalescence his abdomen and legs began to swell. He also became much emaciated, and had frequent attacks of epistaxis, but no hæmatemesis.

When admitted there was marked jaundice, as well as ascites and œdema of feet and scrotum. He was tapped for the ascites on Jan. 6, but with only temporary relief. The fluid reaccumulating, tapping was performed again on Feb. 3, and he died Feb. 7.

The principal point in this case was the liver. The history was evidently an ordinary one of cirrhosis. The organ was small in size, and only weighed about two pounds. Instead of having the ordinary nodular appearance of a cirrhotic liver, the *surface was perfectly smooth*, and even the capsule was not very much thickened. It was very evident, however, on looking at the organ with the naked eye, that there was a very marked increase of fibrous tissue, which had the ordinary character and appearance of new growth. This fact was of some importance in connection with the generally received idea that the ordinary "hobnailed" liver was caused by the contraction of this new tissue. In that specimen there was no contraction whatever. There was another point of interest in this liver, and that was the condition of the hepatic cells. These were hardly diseased at all, the majority having their normal appearance. The fact that the cells were not altered, according to Dr. Delafield's idea, explained the reason why the surface of the liver was smooth. He believed that the production of nodular liver was due more to the shrinkage in the cell element than to the contraction of the new-formed connective tissue. The kidneys were in a condition of chronic Bright's disease.

In connection with the rarity of this condition he remarked that the cirrhotic livers might be divided into large and small. In the first variety the organ might be nodular or smooth, in the second variety the same conditions might be seen, but it was exceedingly rare to find a small and smooth cirrhotic liver. He mentioned in passing that still another variety of cirrhotic liver was met with, but was still more rare. This was of syphilitic origin. The organ was about the medium size, but the fibrous tissue, instead of surrounding the acini, was found to separate the individual cells. He had met but two cases of the kind, one of which had also been examined by Dr. Satterthwaite.

The Society then went into executive session.

The President appointed the following gentlemen as members of the Microscopical Committee: Drs. E. G. Janeway, T. E. Satterthwaite, and J. W. S. Arnold. Adjourned.

The Alumni of the Medical College of Ohio met at Cincinnati on the 25th ult. and organized an association.

Correspondence.

WOUND OF HEART BY BUCKSHOT, AND RECOVERY.

To the Editor of The Medical Record.

Sir:—Thinking the following may be of general interest to the profession, I send it to you:

On the 15th inst. I received by express from Dr. Henry W. Haldeman, of Iowa, a box enclosing a heart, accompanied by a letter, from which I make the following extract:

"It is the heart of a deer, shot a few days ago by a hunter. You will discover an old cicatrix at the termination of which is lodged a buckshot, which inflicted the wound, I should think about a year previous. The pericardium was removed before I received it."

Unfortunately the buckshot had become dislodged, and was lost through the somewhat broken box.

The heart is apparently normal, except the cicatrix, and weighs one pound, all the vessels cut close to the heart. Placing it on what, in a human heart, would be its posterior surface, I find the left ventricle, from base to apex, four inches and a half, and from the border of the ventricle to the line of the coronary artery marking the ventricle septum, is a nearly uniform width of about two inches. The cicatrix is on the anterior aspect in the wall of the left ventricle, extending in the line of the septum, but half an inch from it, for three inches, following the curve of the heart, and is half an inch wide, somewhat depressed, the most so near the apex. At the upper end of the cicatrix a part of the wall is cut out to show the cavity so long occupied by the buckshot, which was unfortunately lost. Along the line of the cicatrix the ventricular wall is three-fourths of an inch thick. Assuming that the shot struck the heart when dilated as it is now, it traversed the muscular structure nearly parallel to the septum for three inches.

Whether founded a year ago or less, the whole indication is complete recovery from the violence done at the time, and on that account is of value as showing that a severe wound of the heart is not necessarily fatal.

There is no indication of adhesion of the pericardium, which was removed by the hunter, and so far as appears received no attention.

Truly yours,
C. L. Ford.

University of Michigan,
Ann Arbor, Mich., Jan. 25, 1875.

Alumni Association of the College of Physicians and Surgeons.—At a meeting, held Wednesday evening, Feb. 24th, the following officers were elected for the coming year: *President*, Alfred S. Purdy; *Vice-President*, William H. Draper; *Secretary*, George Bayles; *Assistant Secretary*, John N. Beekman; *Treasurer*, Timothy M. Cheesman; *Trustees*, Robert A. Barry, D. Tilden Brown, Gurdon Buck, Henry C. Eno, Thomas E. Satterthwaite. Dr. Robert F. Weir and Dr. A. Brayton Ball resigned from the Committee on Prize Essays, and gave as a reason that the author of one of the papers to be considered by the Prize Committee had become known to them. It was agreed that the time for the examination of the essays should be extended to elect other gentlemen in their places.

Obituary.

JOHN McCLELLAND, M.D.,

NEW YORK.

John McClelland was born at Galway, Saratoga County, N. Y., April 23d, 1805. His grandfather, the Hon. Judge John McClelland, a native of Scotland, became an active participant in the War of Independence. Our lamented friend is said to have resembled him both in his physical and moral excellencies.

His father was a farmer of limited means, and required the services of his son until he became of age, when, contrary to parental wishes and advice, he resolved to study a profession, and at the age of twenty-two took up the Latin Grammar with the motto, "perseverentia et patientia vincunt omnia." He abandoned the plough, and, aided almost alone by that indomitable will and energy which he maintained through life, and which difficulties and obstacles only spur to increased vigor, he was enabled to take the degree of A.B. at Union College in the class of 1832—a class noted for many distinguished members, among whom we may mention as intimate friends of the deceased the Hon. Judge G. M. Speer, LL.D., and Hon. Judge Hamilton Robinson.

Dr. McClelland graduated at the College of Physicians and Surgeons in 1838, was appointed physician in charge of the New York Lunatic Asylum from June 10th, 1839, to September 22d, 1843, when his place was made vacant, and he commenced the practice of medicine in Bayard Street. The year following he was appointed Resident Physician of Bellevue Hospital, which position he held for one year, and discharged the duties of that responsible office with credit and honor.

In 1846 he resumed private practice at No. 261 Fourth Ave., and subsequently at No. 346 same avenue, where he applied himself assiduously to his profession day and night for nearly thirty years; ever mindful of his motto, he indulged in no recreation or social pleasures.

In 1872 his health began to fail, and he removed to 13 E. 66th Street, but continued to perform his professional duties, to the extent of his ability, until the 14th of February, when he was attacked with gastroenteritis, together with typhoid erysipelas, which terminated in his death at 7.45 a. m., February 20th, 1875.

From the beginning of his professional career he never refused his services and advice from any inability of the patient to make compensation.

His generous heart was seldom appealed to in vain by those whom he deemed worthy, and many a young physician will remember with gratitude his timely aid. His cordial and assuring manner at once won the confidence and love of those who sought his advice, which the tears of thousands to whom he had long become endeared, and who now mourn their loss, will abundantly attest.

E. H

CHARLES B. COVENTRY,

OF UTICA, N. Y.

Dr. Charles B. Coventry, of Utica, Oneida County, died February ult., at his home. He was a son of Dr. Alexander Coventry, and was born in Deerfield, N. Y., on the 20th of April, 1801. After the usual course of study he was graduated as Doctor of Medicine in the spring of 1825, at the College of Physicians and Surgeons of Western New York, at that time situated at Fairfield, Herkimer County, and during the same year entered into partnership with his father. In 1828 Dr. Coventry was appointed Lecturer on Materia Medica in the Berkshire Medical College at Pittsfield. After holding the position for three years he resigned it and began practice at Utica. The expected advent of the dreaded epidemic of 1832 caused him to be sent by the Common Council of the city to investigate the character of the disease, as it had already manifested itself in some of the Eastern cities. On his return he made a full report, which was published. His interest in the subject and the experience he afterward acquired when the cholera raged so fearfully gave origin to a later and valuable treatise from his pen. In 1839 he took part in the organization of a medical institution at Geneva, and again assumed the professorship of materia medica and obstetrics. The next year the chair was exchanged for that of obstetrics and medical jurisprudence. In 1846, in addition to the above post, he became Professor of Physiology and Medical Jurisprudence in the Buffalo Medical College, then just chartered. With this latter college he remained connected to the last, though of late only as Emeritus professor.

He was elected a member of the Medical Society of the State in 1841. In 1854 he became the President of the Society and read an address at the meeting in the following year, on "The Philosophy of Medicine as a Science and an Art." He contributed several valuable papers to the medical journals and to the transactions of the State Society.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from February 21st to February 27th, 1875.

Smith, A. K., Surgeon.—Relieved from duty in District of New Mexico and assigned to duty at Fort Hayes, Kansas. S. O. 21, Department of the Missouri, February 18, 1875.

White, R. H., Assistant Surgeon.—Granted leave of absence for two months, with permission to apply for an extension for six months. S. O. 41, Military Division of the Atlantic, February 26, 1875.

Yeomans, A. A., Assistant Surgeon.—At the expiration of his present leave of absence to report in person to the commanding officer, Newport Barracks, Ky., for duty. S. O. 31, A. G. O., February 23, 1875.

Adair, G. W., Assistant Surgeon.—When relieved by Assistant Surgeon Yeomans, to report in person to the Commanding General Department of Texas, for assignment to duty. S. O. 31, C. S., A. G. O.

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Successful Transfusion.—*L'Imparziale*, No. 11, 1874, says that Professor Caselli performed this operation upon a girl affected with lipomania and stupor, who was unable to speak or to perform any movements at all complex. The blood used was taken from a sheep and flowed from the vessel at the rate of two ounces in fifteen seconds. It was conducted directly into the veins of the patient by means of a tube. After being allowed to flow for the quarter of a minute the transfusion was stopped and the patient appeared greatly revived, showed some color, took a deep inspiration, spoke a few words and made movements. The effect was persistent and recovery followed.

Medical Items and News.

Dr. Edward Delafield.—At an adjourned meeting of the Board of Trustees of the College of Physicians and Surgeons, held on the 18th ult., the following preamble and resolutions were unanimously adopted:

Whereas, since the last meeting of this Board, Edward Delafield, M.D., President of this College, departed this life on Feb. 13th, 1875, at the advanced age of eighty-one years, therefore be it

Resolved, That this Board enter upon its records, its high appreciation of the long-continued and valuable services rendered by him to this college. One of its earliest graduates, he served the institution as professor from 1826 to 1839, subsequently as trustee and vice-president, and since 1858 as president, until the time of his decease. This Board would express their deep sorrow at his departure.

Resolved, That during his long professional career, in which he attained a high rank as a learned instructor, no less than as a skilful and successful physician, his honorable conduct and great moral worth, his humane and sympathetic deportment, ennobled the profession of which he was a honored member.

Resolved, That the high reputation to which this college has attained, as one of the greatest medical schools of our country, is, in no small degree, to be attributed to his wise administration.

Resolved, That a copy of these resolutions, duly certified, be communicated to the family of the deceased.

Resolved, That these proceedings be published in the N. Y. Medical Record and N.Y. Journal of Medicine.

Signed, J. G. Adams, M.D.,
Gurdon Buck, M.D.,
Cambridge Livingston, M.D.,
Committee of Trustees.

Feb. 18th, 1875.

New Members of the Medical Society of the County of New York.—Leon de Brémon, 145 E. 21st Street, a graduate in medicine at the Academy of Paris, France, in 1867. Thaddeus M. B. Cross, 37 W. 21st Street, a graduate in medicine at the Bellevue Hospital Medical College, in 1868. P. Albert Morrow, a graduate in medicine at the Medical Department of the University of the City of New York, in 1874.

Bellevue Hospital Medical College Commencement.—The fourteenth annual commencement of this school took place at the Academy of Music on the afternoon of Thursday, February 25th, ult.; one hundred and ninety-four students receiving the degree of doctor in medicine. The music by a grand orchestra under the direction of Mr. Bergmann, the leader of the Philharmonic Society, was very good. The Hon. John R. Brady delivered an address to the graduates, and John H. Duncan of the graduating class pronounced the valedictory.

The following prizes were awarded: Prize for the best standing in the general examination—Dr. Frederick S. Dennis, of the class of 1874, who obtained the prize of $100 of that year, offered by Dr. James R. Taylor, offered the same prize to be competed for by members of the class of 1875. In making the award, the Faculty found it impossible to decide between two candidates who were of equal merit. The prize was therefore divided between Leonard J. Gordon, of New Jersey, and Leopold Putzel, of New York.

Two other prizes, offered by James R. Taylor, of the class of '74, for general examinations ranking second and third in excellence, were awarded as follows: The second prize, of $50, to Henry M. Silver, of New York; the third, of $25, to Charles H. Thomas, of Kentucky.

The prize of $100 offered by Professor James R. Wood to the Alumni Association, for the best essay upon any subject connected with surgical pathology or operative surgery, was awarded to Dr. L. A. Stimpson, of the class of '74. Dr. Stimpson being in Europe, the Secretary received the prize for him.

The two prizes also offered by Professor Wood—one of $50, the other of $25, for the best preparations relating to surgical anatomy, were won by Dr. E. Morrison, of the Bellevue School, and Mr. Benjamin Benoit, Jr.

Professor A. B. Mott's prizes for the best reports of his clinique, were of $50 and $25 each, but were equally divided between A. J. Reynolds and N. A. Powell, whose reports were considered by Dr. Mott to be of equal worth.

The prize of $50, offered by James Brice, Esq., to the graduate who should present the best inaugural thesis upon obstetric medicine, or diseases of women and children, was awarded to Leopold Putzel. On account of the excellence of the thesis presented by L. J. Gordon, Professor Fordyce Barker added a second prize of $25 in gold, which was awarded him.

Professor Flint, Jr., announced the establishment of the prize of $100 by the Alumni Association, notice of which was given on page 136 of The Medical Record of Feb. 20th.

In the evening the Faculty entertained the graduating class, and a number of invited guests, at Delmonico's, where an elegant supper, music, and speeches brought to a happy close the most prosperous year the school has yet seen.

School Hygiene in Rhode Island.—We have been authoritatively informed that the R. I. Medical Society has not yet passed upon the resolutions concerning School Hygiene referred to on page 135.

The College of Physicians and Surgeons.—The sixty-eighth annual Commencement exercises of the College of Physicians and Surgeons (Medical Department of Columbia College) were held on Tuesday evening, March 2d, at Steinway Hall. The Graduating Class numbered 108. Prof. Edward L. Beadle, Vice-President of the College, presided, and the platform was occupied by the Trustees and Professors of Columbia College, and a large number of members of the Faculty. The prayer of Bishop Hobart, specially composed for the college by that prelate, having been offered by Rev. Dr. Sullivan H. Weston, the degrees of M.D. were conferred. After the conferring of degrees, Dr. Beadle referred in eulogistic terms to the late Dr. Edward Delafield, and briefly sketched his career.

The following prizes were then announced by Prof. Dalton:

Faculty Prizes—First prize, William H. Welsh, A.B., Norfolk, Conn.; second, Joseph D. Anway, New York City. Honorable Mention—Edward Lasell Partridge, Lawrence, Mass.; John E. Stillwell, New York City; Howard Williams Longyear, Detroit, Mich.; James H. Casey, East Haven, Conn., and D. Bryson Delavan, New York City.

Prof. Thomas' prize case of surgical instruments, Alonzo Blauvelt, New York City.

Prof. Otis' prize, $50, John E. Stillwell, New York City.

Prof. Seguin's prize, Alfred Masters, New York City.

In conclusion, Prof. Dalton announced that Dr. Oakley Vanderpoel offered a prize of $50 for the best examination in anatomy, to be awarded at the Commencement exercises of the College in March, 1876.

The valedictory address was then delivered by Stephen S. Burt, a member of the graduating class, and the concluding address was delivered by Rev. Dr. Washburn. The exercises closed with the benediction.

The Women's Medical College of Philadelphia has been made the recipient of $50,000 from Mr. J. V. Williamson, to endow "free scholarships" in the school and "free beds" in the hospital attached to it.

A Centenarian.—Canadian papers mention the death in Fingal, Ont., of Joseph Hyndman, a Scotchman, aged one hundred and five years.

The Graduates of the University, Medical Department, at its recent commencement, numbered ninety-five instead of eighty-six, as was stated in the city papers.

Physiological Experiments upon the Human Corpse.—The experiments made by Drs. Keen and Seiler upon the body of Heidenblut, at Philadelphia, immediately after its removal from the gallows, showed that the internal intercostals are muscles of inspiration and the external intercostals muscles of expiration, the former lifting the ribs, the latter depressing them. In testing the facial muscles it was also shown that the pyramidalis nasi is a direct antagonist to the occipito-frontalis.

The Art and Science of Hanging.—It is stated by the *Irish Times* that Professor Haughton, of Dublin, is writing a work on this subject.

Inflammable Gas found in the Stomach.—In the *Irish Hosp. Gaz.* is mentioned the case of a man who suffered eructations of gas after eating, and on four occasions the gas had caught fire, burning his lips and nose. He had symptoms of acid dyspepsia with dilatation of the stomach, probably owing to stricture of the pylorus. Analysis showed that the gas contained carbonic acid and hydrogen, the latter being the cause of its inflammability.

Physicians in the Italian Parliament.—The profession is represented in the Italian Parliament by twelve physicians and surgeons, and an accoucheur.

Dr. John Cronyn has been elected Professor of Midwifery in the Irish College of Surgeons, from among seven candidates. He is a well known and popular obstetrician; was formerly assistant physician in the Rotundo Hospital under the present master—whom he will probably succeed—and has for many years acted as examiner in the college.

The New Edinburgh University Building.—The plans for the new building for the Edinburgh school have just been adopted, and contemplate a hall in the form of a Greek theatre, capable of holding from 2,000 to at most 2,500 people; an anatomy class-room, circular in form, with a diameter of fifty-five feet, and intended to hold 400 students. Connected with the dissecting-room are to be a bone-room, a microscope-room, and apartments for injecting, etc. Class-rooms for surgery and practice of medicine, having a capacity for 250 students, a museum 112 by 40 feet, lighted from the roof, chemical laboratories, separate rooms for teaching materia medica, obstetrics, and jurisprudence, and reading-rooms for the faculty and students are also contemplated in the plan. A tower 230 feet high will serve as a belfry, and to give passage to two large ventilating shafts. The estimated cost, without the tower, is $350,000.

Vaccination in India.—Indian medical officers demonstrate that the practice of vaccination is making considerable progress in that country. It is found that the "religious" objections of the natives to the operation can invariably be overcome by the payment of one ana (1½d.) per child.

Small-Pox in Rome.—Dr. Toscani has made an exceedingly interesting report of the recent epidemics of small-pox in the Italian capital, by which it appears that in the space of one hundred and thirty months, 3,149 persons were attacked, of whom 1,219 died, the first four being unvaccinated. In 2,770 cases the disease declared itself at the patients' homes; in three cases, at the hospitals; in fourteen cases, in the prisons; in twenty-seven, in the colleges and seminaries; while 245 patients belonged to the Agro Romano, and 90 to the contiguous districts. The poorer classes furnished nearly all the victims; the higher classes only twenty-two; the middle classes, including the Garrison, 233, the mechanics or working classes, 964. The persons vaccinated who were attacked, were 521, of whom 72 died, or 13·81 per cent. The persons not vaccinated who were attacked were 2,289, of whom 1,065 died, or 46·61 per cent. In 339 cases, of which 82 were fatal (24·30 per cent.), it could not be discovered whether vaccination had been practiced. The deaths varied in the following proportion, according to the place in which the patients were treated: at home, 46 deaths per 100 patients; at the Hospital of San Spirito, 23 per cent.; at San Giovanni in Laterano, 21 per cent.; at the Military Hospital, 8 per cent.; at the Hospital of the Fate-Ben-Fratilli, 36 per cent.; at the Lunatic Asylum, 60 per cent. Among those vaccinated the greatest number of deaths occurred between one, seven, fourteen, and thirty years of age.

The Annual Report of the Rotunda Lying-in Hospital, in Dublin, for 1874, shows that there were 1,236 deliveries in the year, and but 15 deaths from all causes, viz., placenta prævia, 1; apoplexy, 1; convulsions, 1; scarlatina, 3; bronchitis, 1; peritonitis, 5; pyæmia, 1; sloughing, 1; fatty degeneration of the liver, kidneys and heart, 1; typhus, 1; typhoid fever, 1. Only 997 of the deliveries were perfectly natural, terminating within twenty-four hours, and in 40 it lasted beyond that period. In 45 cases the ovum was expelled at the sixth month; and in 138 cases the forceps were used, 105 of the latter were in cases of primiparæ and of these five died. There were 24 cases of twins, and version was performed 14 times. *Post partum* hemorrhage occurred in 25 cases, and chloroform was administered to 104 women without any bad results.

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Weekly Bulletin of Meetings of Societies.

Monday, Mar. 8.—N. Y. Ophthalmological Society.

Tuesday, Mar. 9.—N. Y. Obstetrical Soc. Adjourned meeting at house of Dr. John G. Perry, 113 Madison Ave., "Lacerations of the Perineum;" paper by Dr. F. D. Lente. American Microscopical Soc. Yorkville Medical Assoc.

Wednesday, Mar. 10.—N. Y. Pathological Soc.

Thursday, Mar. 11.—N. Y. Laryngological Soc. Brooklyn Pathological Section, Jersey City Pathological Soc.

Friday, Mar. 12.—Medical Library and Journal Assoc. Harlem Medical Assoc.

Saturday, Mar. 13.—N. Y. Med. and Surg. Soc.

Original Communications.

ON HYDROPHOBIA.

By JOHN G. JANEWAY, M.D.,

ASSISTANT-SURGEON U.S.A.

A WRITER* in the *American Journal of Science and Art*, May, 1874, states that "it is evidently my opinion that the malady produced by the mephitic virus is simply hydrophobia." Should he be correct, then all that is established by these facts would be this, viz.: "that henceforth the varieties mephitis must be classed with those animals that spontaneously generate poison in the glands of the mouth and communicate it by salivary inoculation." The personal observation of fifteen fatal cases of hydrophobia, produced by the bite of rabid animals, skunks, wolves, and hogs,† and the reliable statements of a number of other cases, has fully confirmed me in the opinion above stated, that the malady produced by mephitic virus is simply hydrophobia.

The following five cases are taken from the fifteen fatal cases that have fallen under my observation:

CASE I. BITE OF SKUNK.—Was called to visit Wm. P., aged nineteen, a herder, whom I was told by the messenger had been acting strangely all the morning. I found him lying on a bed in a sod-house, dressed, with several of his companions around him. Face flushed, pulse very rapid, the heat of skin intense and dry, eyes brilliant and pupils dilated rather more than natural, extremely restless and frequently catching at his throat; upon questioning, replied that his throat was turning into bone. Had not felt well for two or three days; did not know what was the matter with him. Upon pouring out some water from a pail near by, to administer morphia to him, he went suddenly into convulsions.

Suspecting hydrophobia immediately, as soon as he regained consciousness I learned that he had been bitten by a skunk, just before daybreak, seventeen days before, in the little finger of the left hand; that the wound was small and soon healed; that for two days preceding my seeing him his finger and arm had felt numb. Upon examining the finger, slight redness was observed at the place bitten, tongue slightly furred and somewhat swollen, no so-called "characteristic pustules" were to be seen. Thirst intense and begged for water, but the sound of dipping the water from the pail threw him immediately into still more terrible convulsions, frequent sighing, and catching his breath. Administer hypodermic injections of morphia without avail. Upon the arrival of chloroform, which I had sent for, its administration gave partial relief for a short time. His endeavors to free himself of the tenacious mucus were terrible, when the incautious upsetting of a pail of water again threw him into convulsions, opisthotonos in character, followed by attempts at biting those holding him, and, when consciousness was regained, asking pardon for so doing. Hyperæsthesia existed in a very marked degree in this case. Death came to his relief in about eighteen hours from the time of his first convulsion.

CASE II. BITE OF SKUNK.—An emigrant from Wisconsin, camped on the north fork of Big Creek, about seven miles from Hays, applied to me in the fall of 1872 for dressing for his hand, which had been bitten between the thumb and index finger of his left hand, the night previously, by a skunk. Cauterized the wound well, and directed him to repeat the cauterization twice a day. Saw nothing of him for twelve days, when I was sent for, and upon arriving at his camp found him in convulsions, which were repeated rapidly. Face flushed, eyes brilliant, pupils rather contracted, skin hot and dry, pulse small and rapid, 120, no so-called "characteristic pustules" under the tongue. When not in convulsions, mind clear and fully aware of the fate that awaited him. From his wife I learned that after the third day of using the caustic the wound healed and gave him no further trouble; that for three days he had been complaining of some fulness in the head, and a general "malaise," neither sick nor well; that the convulsions came on about seven hours previous to my seeing him, suddenly, upon attempting to take a drink from a spring close to their camp; that he would go into convulsions whenever water or tea was offered him, and that the faintest breath of air would cause him the greatest anguish, so that she had to put a blanket up before the door. Death followed in twenty-one hours after seizure.

CASE III. BITE OF SKUNK.—A hunter, in the latter part of October, 1872, applied to me to be treated for a bite through the right alæ of the nose. He had been attacked by a skunk while in camp on the Smoky Hill river two nights previous. Having learned, previous to my seeing him, that skunk-bites would produce hydrophobia, he had imbibed freely, and was decidedly under the influence of liquor when I saw him, evidently nervous about himself, but trying to conceal the fact.

A stick of nitrate of silver was passed repeatedly through the wound. Actual cautery was proposed, but he would not consent to its use. After being under treatment two days he left and went to Missouri, to have the mad-stone applied; returning from there, he followed his occupation. Twenty-one days after he was bitten he was taken with convulsions, and died about an hour after I got to his ranch, nearly thirty hours after the seizure. From one of his companions I learned that after his return from Missouri he was cheerful and in apparent health up to the day before his seizure, when he complained of pain in his nose and face, headache, chilly, and feeling tired, but had no apprehension concerning himself. The first symptom, the morning the disease developed itself, was a feeling of constriction in the throat, together with dryness, opisthotonos, with decided mania preceding the spasms.

CASE IV. BITE OF WOLF.—A private of Co. F, Sixth Cavalry, was bitten by a wolf one evening, just after he had come off post, in the lobe of the left ear, in the early part of October, 1873. The wound was freely cauterized with nitrate of silver by the surgeon of the camp. On the 28th of the same month he applied to me for medicine for headache, which was given to him. On the 30th he again applied for medicine, stating that he did not feel sick enough to go on the sick report. Knowing the man's history, I cautiously examined him, and questioned him in such a way as not to excite his fears. I found that the lobe of the ear that had been bitten was quite numb to the touch. No other symptoms presented themselves prominently. There was, however, a general malaise. The day following, the man was in the ranks for muster and inspection. Observing him, I saw at once that something was wrong, and upon reporting his case he was ordered to his quarters, by the commanding officer. Fifteen minutes later I was sent for to see him, and found him in convulsions, which the orderly informed me came on upon his attempts to take a drink of water. He was at once removed to the hospital. He suffered from cold, he told me, whilst being conveyed there. Examination revealed alternately contracting and dilating pupils; skin very hot; temperature 102°, 102.5°, 100°, by three examinations, with the thermometer in the axilla; pulse 120–125, alternating in volume before and after a spasm, but constantly rapid. Tongue somewhat swollen and indented by the teeth on the edge; thick, whitish fur; no so-called "characteristic pustules" under the tongue. Thirst intense; no irritability or sensation in the wound of the ear; constriction of the pharynx; increasing violent attempts to relieve himself of the thick and tenacious saliva; sound produced resembling more the bark of a wolf than any sound ever heard. Complete inability to swallow any liquid, the attempt ending in a convulsion. Mental faculties perfect when not in spasm; fully aware that death must end the scene. Towards the close the convulsions were longer and of greater strength, with frequent furious attempts to bite his attendants, for which he would beg their pardon time and again. Death took place suddenly in thirty hours.

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* Rev. Horace C. Hovey, M.A.

† Skunks 10, wolves 3, hogs 2.

Case V. Bite of Dog.—A man, aged about 46, attached to a hay-camp, applied to me in August, 1873, to dress his hand, which had been terribly lacerated by a favorite hound that day. He stated that his dog had been acting rather strangely for several days, but that up to that time had always come to him when called, and had appeared as affectionate as ever; that a strange dog had appeared in camp, and that his dog had attacked it furiously; he attempted to separate them, when his dog turned and bit him through the hand, his teeth passing completely through from side to side; that immediately after biting him he (dog) had run off a short distance and laid down in a pool of water. Cauterizing the wound freely I directed him to report at the hospital next morning, when the eschar was removed and his hand was again cauterized. The following day he called at the hospital and stated that he had shot his dog, and was satisfied that he was mad, and that he was going that day to Missouri to have a madstone applied. He remained there a week, and then returned and rejoined the hay-camp. On the twenty-fourth day after he was bitten, I was sent for to visit him at the hay-camp, on the Smoky Hill river, lying in a wagon-bed, and was saluted with, "Doctor, that dog has killed me; I know that I have got the hydrophobia, and that I shall die." His face flushed; skin hot; pulse very rapid and small, 125; tongue furred, brownish, swollen; complained that his throat was turning into bone, and that he could not swallow; if he saw any liquid, thought he would like to drink a bucketful of water just once. On attempting to give him some morphia in solution the convulsions were ushered in. He had been well up to the morning he sent for me. The first symptom he noticed was the feeling of constriction in his throat, and he noticed a slight increase of redness in the wounds on his hand, though there was no pain. Had seen several cases of hydrophobia, and at the earnest solicitation of his wife had sent for me. Left him powders, of twenty grains each, hydrate chloral, to be given in moist sugar every three hours, and promised to see him next morning. I saw him the following morning, and found him decidedly worse; convulsions more frequent and stronger; pulse smaller and extremely rapid; tongue more swollen; no so-called "characteristic pustules" to be found after careful search; eyes brilliant, with rather a contracted pupil; great difficulty of swallowing, though he was able to sup up a little water through some straw from a covered cup; had considerable sleep from the chloral, but his stomach had rejected the last dose, and he was unable to take any more; mental faculties clear, could tell the approach of a convulsion, and begged his wife and attendants to take care; much increase of the thick tenacious saliva, and greater difficulty in freeing himself of it. No alteration in appearance of wound. The convulsions became more frequent, stronger, and longer in duration. He insisted upon being chained down to the wagon bed to prevent his injuring any one. Chloroform was left, with directions as to use. The day following I found him barely alive, unconscious, with frequent feeble spasms. Death ended the terrible scene after thirty-seven hours of sufferings. In this case there was no marked hyperæsthesia of the skin complained of.

Neither can I agree with the writer of the paper mentioned above, that mephitic inoculation is sure death. For the result of one case of bite from a rabid skunk, which will be detailed more fully hereafter, the report of eight others (six hunters and two soldiers) that were bitten, and also from having in my possession two dogs, one a setter and the other a black-and-tan, which have been repeatedly bitten in encounters with these animals and have as yet never evinced any symptom of the disease, will not permit me to concur with him. That more cases, proportionally, may result fatally from the bite of this animal, than from the bite of rabid dogs or wolves, is probably, if not actually, the case; still, there are obvious reasons for it to be so. An animal nocturnal in its habits, generally timid, but armed with a powerful battery to resist any injury or affront; one that will not attempt to bite in defence until the secretion provided for it by nature is exhausted, loses that secretion by the disease. It is a well-authenticated fact that rabid skunks are entirely free from the odor so characteristic of these animals, which could not occur if the secretion was not exhausted, and forgetting its normal timidity will attack any person or animal he may come in contact with, biting the most exposed part of the body, the alæ of the nose, the lobe of the ear, the thumb, or one of the fingers, and passes on. Here is probably the reason these bites are more fatal than those of other animals—always in a vascular part not protected by clothing, which prevents by wiping away the poisonous saliva in the fierce attacks of the mad dog or wolf, and thus saves the life of the one bitten. At a frontier post* this was well illustrated. A mad wolf suddenly sprang upon the officer of the day, who was making his round, and bit him on the arm, through his clothing; passing on, he bit a sentinel on post in the wrist, between the sleeve of his coat and glove, and then sprang upon a woman who was nursing a child near by, and bit her on the shoulder through a thick woollen shawl. All the cases were treated the same. The officer and the woman escaped the dread disease, but the soldier died of hydrophobia. A recent writer† says in reference to bites of rabid dogs: "The documents of investigation furnish indications full of interest in regard to the more or less innocuousness of bites, according to the different parts of the body upon which they were inflicted. If we compare the fatal with the harmless bites made upon the same region, we find that out of thirty-two cases where the face was bitten, twenty-nine proved fatal, which gives these wounds a mortality of ninety per cent. Out of seventy-three cases, in which the wounds were upon the hands, they have been fatal in only forty-six cases, harmless in twenty-seven, giving an average mortality of sixty-three per cent. In comparing wounds of the arms and legs with those of the face and hands, the ratio is inverted; twenty-eight wounds upon the arms were followed by only eight fatal terminations, and twenty-four bites upon the lower limbs gave only seven fatal cases; seventeen remained harmless, showing a mortality of twenty-eight to twenty-nine per cent., and an innocuousness of seventy to twenty-one per cent., and, lastly, the ratio mortality for wounds upon the body is shown as follows: Out of nineteen bitten, twelve cases were fatal and seven bites proved harmless.

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* Fort Larned, Kansas.

† H. Bouley, Gen. Inspector Vet. Schools of France, etc., etc.

These facts are confirmatory of those afforded by other statistics, demonstrating also that rabid wounds upon uncovered or unprotected parts, such as the face and hands, are much more readily contagious than those of the arms and legs, which the teeth of the animal cannot reach without passing through a portion of the clothing, which wipes off the virulent moisture from the teeth. It is true the consequences of bites upon the body seem to conflict with this statement: but we must remember that generally these wounds are more severe, and among them some are uncovered parts, such as the neck and chest, and that, when a man is attacked by a rabid animal and bitten upon the body, he is also bitten upon his hands, which are his material means of defence. Another reason for the apparent large proportion of fatal cases from skunk bite is, that it is only since 1871 that these cases have been collected, or that the fact of hydrophobia existing in and following the bites of these animals has been generally known, and only those cases proving fatal have been reported, the non-fatal cases, from the trivial character of the wound, not being considered of sufficient importance to report.

A CASE OF SKUNK BITE *not* FATAL.

W., a young man. twenty-two years old, born in Missouri, commonly known by the soubriquet "Pike County," driving a team for a party of emigrants for Colorado, was bitten at night, in the early part of May, 1874, upon left cheek, by a skunk, whilst camped at Park's Fort,* Kansas. A companion, who was bitten by the same animal, freely cauterized the wound. Early the next day he presented himself at the hospital for treatment. Removing the eschar I cauterized it again freely with caustic, and directed that he take $\frac{1}{16}$th grain of strychnia every three hours during the day, with vegetable tonics and full diet, the wound to be cauterized morning and night. and a poultice to be applied one hour before retouching to remove the eschar and promote suppuration. No characteristic symptoms being produced by the strychnia on the fourth day, it was increased to $\frac{1}{12}$th grain dose, given as before. Suppuration was fairly set up in the wound and continued; four days after, strychnia increased to grain $\frac{1}{8}$th, and continued at that for four days without any symptoms of its toxic effects. The dose was then increased to grain $\frac{1}{4}$th, and continued for six days without the patient being conscious of any jerkings, though the night nurse and some of the patients stated that he jerked somewhat more than natural when asleep. Suppuration of the wound continued free under the caustic and poultices; the dose of strychnia was then increased to grain $\frac{1}{2}$, and I watched him very carefully. for the slightest appearance of the effect of the medicine, for six days. On the last day I detected some slight involuntary twitching of the muscles of the face, and reduced the dose. Two days after reducing he remarked that he guessed that he was safe from hydrophobia, as the strychnia had not killed him. The wound was allowed to heal up, which it did rapidly, and a few days after he left the hospital. and I saw him three months after perfectly well.

The above case shows either, first, that the man was not inoculated by the virus when bitten; second, a wonderful tolerance for the drug if he was not so inoculated; or, third, that acting primarily as a tonic to the nerve elements it enabled them to resist the invasion of the disease, and together with the frequent cauterizaion and free suppuration, to eliminate the poison from the system. (That the strychnia used was a good article was proved by the effect of a small dose upon an obnoxious cur of medium size.) I am inclined to the latter, for that the animal causing the wound was undoubtedly rabid is proved by the fact that the companion who was bitten by the same animal, in the camp, on the same evening, was reported to have died from hydrophobia about ten days after being bitten, and should another case present, would adopt the same treatment and push the drug until its characteristic effects upon the system presented.

Rabies Mephitica, like Rabies Canina, is evidently epidemical. no cases of it having been reported previous to 1870 in this region.

The period of incubation is alike in Rabies Canina and Rabies Mephitica (so called), that is, it is indefinite, ranging from ten days to ninety days, no opportunity in the meanwhile being afforded for subsequent inoculation of hydrophobia. Statistics show that the manifestations of the disease have been most numerous during the first sixty days, and that after a bite from a rabid animal the probabilities of escape increase considerably when sixty days have passed and no symptoms of the disease have shown themselves, and that after the ninety days entire immunity is almost certain. Still. I am aware that cases are reported of a longer period of incubation. These are exceptional. and when reported to extend beyond the fourth month it may be questioned whether the patient has not been unconsciously inoculated by the caresses of a pet dog. suffering from the disease unsuspected, from tetanus, or, as Baron Larrey * remarked, when commentating upon Dr. Fereol's case of hydrophobia with two years and a half incubation: "For my part I should be disposed to regard his case not as an example of rabies, with an incubation of two years and a half, but as one of cerebral hydrophobia or symptomatic of acute delirium, provoked or aggravated by the coincidence of the bite of a dog presumed to be mad." In all the cases from the bite of a skunk the prodromic stage of the disease was more or less marked, though nene of them amounting to acute melancholy. An indefinite feeling of dread and a general malaise—the most prominent symptoms, together, in most cases, with pain or numbness at the seat of the wound, were present from one to three days. To most of these unfortunates the fearful results of the trivial wound they had received was unknown, and unaware of their perilous condition were not incessantly tormented with sad forebodings or dread of the onset of the malady.

2. The characteristic pustules which the writer of Rabies Mephitica lays stress upon were not found in any of the cases of hydrophobia produced either by the bite of the skunk, wolf. or dog. Niemeyer † states that "the assertions of Marochetti, who claims that during the incubation stage vesicles form beneath the tongue, and that by destroying these vesicles the outbreak of the disease can be averted, have not been substantiated."

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* Park's Fort, K. P. R. W.

* London *Medical Times and Gazette*, Aug. 8, 1874, p. 159.

† Niemeyer, Pract. of Med.

3. That the invariable accompaniments of Rabies Canina were not wanting in the cases of R. Mephitica. The specific action of the poison was made manifest first by the œsophageal branch of the eighth pair, giving rise to the characteristic symptom of the disease, or to the extreme difficulty of swallowing, especially of fluids; then the frequent catching of breath noticed in all cases, showing that the recurrent nerve was also affected; later brilliant eye, and the sense of touch becomes painfully excited, hyperæsthesia existing in a marked degree, with the exception of the case reported of R. Canina, all of which point to some lesion of the central and spinal nerves. That the brain itself, and especially the region of the medulla oblongata becomes affected by the terrible convulsions and delirium in the more advanced stage of the malady. The spasms in all the cases were unlike those of tetanus, less continuous, remittent, and often intermittent. In none of the cases produced by the skunk bite was there any loss of perception. In no case that I saw did morphia have any effect in abridging the fearful struggles; death either ended with convulsions, or exhausted by the terrible exertions a sudden calm took place, and, as if nature gave up the conflict, died without a groan.

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A CASE OF SYPHILITIC ATROPHY OF BOTH OPTIC NERVES.

By FRANK H. RANKIN, M.D.,
ASSISTANT SURGEON AT THE MANHATTAN EYE AND EAR HOSPITAL, CLINICAL ASSISTANT AT THE UNIVERSITY MEDICAL COLLEGE, NEW YORK.

THE case presented occurred in the service of Dr. Roosa, at the Manhattan Eye and Ear Hospital, and for the first two months of attendance, during Dr. R.'s absence for the summer, came directly under my care.

E. T., æt. 27, was admitted to the hospital as an out-door patient on the 21st July, 1874, and gave the following history: About five months ago he commenced to complain of intense cephalalgia—pain confined almost entirely to the left side of the head and occiput. Suffered continually with headache for over a month without seeking medical aid; the headache growing more and more severe every week, till finally he was forced to go to bed, and a physician called in, who pronounced the patient to be suffering from inflammation of the brain. Patient was confined to his bed for five weeks, during the greater part of the time suffering with intense hemicrania; had high fever, was troubled a great deal with nausea, but did not vomit; bowels very constipated, requiring medicine to move them; patient would wander in talking, but had no active delirium; had hallucinations, photophobia, and impairment of vision. When he was able to leave his bed his vision was apparently normal, as he states he was able to read the newspaper without difficulty.

Ten years ago he had a chancroid and bubo. Four years ago he had a sore on his penis, which, he says, healed in about ten days. During the past four years he has suffered with troublesome sore throat, and also with an eruption on the skin. Never had any alopecia Last fall was laid up with inflammatory rheumatism.

Since his sickness in March he has felt very much prostrated, but has been comparatively free from headache. Eye-sight apparently perfectly good till five weeks ago, three weeks after leaving his bed, when he noticed the sight gradually failing in the left eye. On presenting himself at the hospital he was very anæmic, had loss of appetite, and appeared generally broken down in health. He had a perfect amaurotic stare, and was unable to find his way freely alone. Pupils moderately dilated, and their reaction to light good. With the left eye there was barely perception of light on the nasal side; on the temporal side there was no perception of light. With the right eye vision = $\frac{16}{200}$, no improvement with glasses. Field of vision in left eye, *nil;* field of vision in the right eye contracted on the inner and upper, and the inner and lower segments almost to the point of fixation. The ophthalmoscopic examination showed atrophy of both optic nerves, more marked in the left. Both disks of a bluish-white color, have an irregular shrunken border on their nasal side. The choroidal ring on the temporal side cannot be made out. A central physiological excavation in both optic disks; the small nutritive vessels on the expansion of the pupillæ have entirely disappeared, and the retinal arteries are much diminished in calibre. Some choroiditis in both eyes.

Treatment.—Ordered an iron and quinine tonic; daily hypodermic injections of nitrate of strychnine in increasing doses, commencing with a $\frac{1}{48}$th gr.; cod-liver oil, hydrarg. protiodid. $\frac{1}{2}$ gr. daily, and to wear blue glasses.

July 27th.—At the suggestion of Dr. Sturgis, discontinued the protiodid. and substituted the ung. hydrarg., a drachm to be rubbed in every night.

July 30th.—Gums slightly tender. Ordered potass. iodid. gr. viij. three times daily, increasing three grains a day.

August 4th.—Patient is now receiving $\frac{1}{12}$th gr. strychnia and taking 48 gr. potass. iodid. a day. Health very much improved. Vision in right eye = $\frac{20}{200}$, with the left eye can count fingers at three feet.

August 6th.—Vision in right eye = $\frac{20}{100}$ indistinctly; vision in left eye 200 indistinctly. Reads No. 12 Jaeger at 10" with right eye, and No. 19 Jaeger at 12" with left eye; received to-day $\frac{1}{10}$th gr. strychnia, hypodermically.

August 9th.—Received yesterday and to-day $\frac{1}{6}$th of a gr. of strychniæ. The patient was unable to walk for nearly an hour after receiving the injection to-day. The toxic effect of the strychnine being shown merely by stiffness of the legs; this was quickly removed after taking a good dose of bromide of potash. Patient is now taking 75 grains of iodide of potash a day.

August 18th.—Have not seen the patient during the past six days, during which time he has been taking $\frac{1}{16}$th of a grain of strychnine by the mouth daily; is now taking 90 grains of potash a day. Vision in right eye = $\frac{20}{100}$, can make out $\frac{20}{70}$ imperfectly; vision in left eye $\frac{20}{100}$ indistinctly. Reads with right eye No. 8 Jaeger at 10", and with left eye No. 11 at 10". Resumed the daily injection of $\frac{1}{12}$th gr. strychnine.

August 24th.—Vision in right eye $\frac{20}{40}$; vision in left eye $\frac{20}{70}$, indistinctly. Field of vision pretty good in both eyes; contracted on the upper and inner, and lower and inner segments.

Sept. 1st.—Vision in right eye, $\frac{20}{30}$; vision in left eye, $\frac{20}{70}$. Can read with right eye alone No. 2 Jaeger, and with the left eye alone No. 3 Jaeger at 7"; with both eyes together No. 1 Jaeger (diamond type) at 6". Discontinued the ung. hydrarg. and substituted the protiodid., $\frac{3}{4}$th gr. daily. Strychnine injections are now given every other day. Patient is taking 125 grains of iodide of potash a day.

Sept. 19th.—Patient has not been seen for several days. He is now suffering quite severely from mercurial stomatitis. The protiodide discontinued. Recommenced the daily injections of strychnine. Vision not so good as at last date.

Sept. 25th.—General condition not so good. Patient says he has not taken the cod-liver oil or potash for the past week on account of soreness of the mouth. Ordered to recommence both. Stomatitis about well. Vision in right eye, $\frac{20}{40}$; vision in left eye, $\frac{20}{70}$.

Oct. 12*th.*—Vision in right eye, $\frac{20}{20}$, imperfectly; vision in left eye, $\frac{20}{30}$. The outlines of the disks on the temporal side are much more clearly marked; on the nasal side the papillæ have the same angular shape as seen at first. The optic disks still present the same brilliant pearly or bluish-white appearance, and there is an entire absence of the nutritive vessels on their surfaces. The principal retinal vessels have regained their normal calibre. In the left eye the twigs usually seen running outward from the retinal arteries as they come out of the disk are absent. General condition of the patient good; says he has not felt so well in ten years. Strychnine discontinued.

Oct. 16*th.*—Vision in both eyes, $\frac{20}{20}$, imperfectly Reads No. 1 Jaeger at 7″. All medicine discontinued excepting the iodide of potash, which he is to take for two months, 15 grains three times a day.

Jan. 24, 1875.—Patient appears in perfect health, says he can see as good as he ever could in his life. Vision $\frac{20}{20}$, imperfectly. Ophthalmoscopic examination showed the optic papillæ to be in the same condition as reported on October 12th.

Feb. 18*th.*—Patient returned to-day, vision in both eyes perfectly normal.

REMARKS.

The unusually favorable results obtained in this case may, I think, be attributed to the fact that the patient came under treatment very soon after the trouble in the eyes set in, and also to very rapidly pushing, to their fullest physiological effect, the mercury, strychnine, and iodide of potash. The mercury, however, was carried a little beyond the desired point, and quite a severe attack of stomatitis was the result. This quickly yielded after using chlorate of potash and alum as a wash, and, with the exception of a temporary retrogression in the condition of the eye, no harm was done.

This case is of especial interest in showing the compatibility of what appears on ophthalmoscopic examination to be marked atrophy of both optic nerves, with still remaining perfect vision; this may perhaps be accounted for on the supposition that the nerve fibres of the retina were unaffected, and that the atrophy was limited only to the head of the optic papillæ.

117 East 26th Street.

SOME FACTS CONCERNING PNEUMONIA.

By W. B. Rodman, M.D.,

FRANKFORT, KY.

Since August, 1871, I have had charge of Kentucky State Prison Hospital. But a very short time elapsed before my attention was called to the immense number of pneumonia cases which I had to attend. Since the 1st of January, 1874, I have kept an accurate record of all the cases which occurred during the year, intending to report them. I did this because I believe my advantages for studying the disease have been equal, at least, to almost any man's in the country. This remark will seem reasonable when I say that during the year 1874 seventy-five well-marked cases of pneumonia occurred in my hospital. I have treated this year sixteen cases, and have now seven on bed.

I saw at once that these pneumonias were somewhat different from any that I had ever met with in private practice. Just here I will give a partial description of the disease. The patient has a chill, which generally occurs in his cell at night. In the morning when he reports himself to the hospital he has cough, slight pain in the side (generally under the nipple), temperature from 103° to 105°, pulse from 120 to 150, respiration from 30 to 50. I find, on percussion, slight dulness over the whole of the posterior aspect of one lung, and very frequently both. Auscultation reveals fearful congestion, as evidenced by weak respiratory murmur and the crepitant râles. One marked peculiarity is, that the whole posterior part of both lungs is frequently involved, while nothing but puerile respiration is heard in front. Most of the deaths have occurred in the first three days of the disease, from extent of the pneumonic process or collateral œdema of the lung. Frequently, in the first twenty-four hours, and on two occasions in less than twelve hours from their admission to the hospital, have patients died. In these rapid cases perspiration was very profuse, intellect slightly clouded, pulse rapid, soft, and small, respiration rapid, and death taking place in a temperature ranging from 101° to 103°. The sputa in all cases has been wonderfully profuse, sometimes reaching two pints a day, though this amount is exceptional. The color ranges from the ordinary brick dust to the prune juice, sometimes it is a dusky brown or black.

I have tried to understand the proper etiology of these cases, but cannot say that I have fully succeeded. The prison is built on "made ground," in other words, on a reclaimed marsh. The cell-house, in my opinion, is the principal cause of the prevalence of pneumonia. Seven hundred men sleep in cells that contain not more than 300 cubic feet of air each. The building itself is imperfectly ventilated. The house was originally designed to accommodate 250 men, additions being made by new stories as the number of prisoners increased. The whole number of stories is at present six. Four hundred and fifty men are engaged in hackling, spinning, and weaving hemp. Two hundred and fifty are in the blacksmith, carpenter, chair, and cooper shops principally. I for a long time supposed that the inhalation of the lint and dust from the hemp was the principal cause; but thirty-five colored female prisoners are engaged in spinning hemp, but having large, well-warmed, and ventilated cells to sleep in, they have no pneumonia. In fact, I had not a single case of pneumonia among the female prisoners last year. Throughout the hemp-raising district of Kentucky this article is handled exactly as it is in the prison; but on inquiry I find that the men (principally negroes) so employed are not more liable to the disease than those following other pursuits. It is true that, proportionally, more of the men employed in the hemp factory have pneumonia than those in the other shops; but, in view of the above facts, I cannot but believe that the cells in which they sleep greatly increase their liability to become affected.

Post-mortem examinations reveal just such changes in the lung as are found in ordinary pneumonia, except the amount of lung-tissue involved, and that occasionally the smaller bronchial tubes are choked up by dust and lint from the hemp. In these latter the sputum is pathognomonic of the disease—the color a dirty brownish black. The amount of lung involved has never been less than one-half of the breathing capacity. That is to say, either one lung entire, or more frequently the posterior halves of both lungs. In one case a heart clot was found extending from the chordæ tendineæ of the left ventricle *through the aorta to a point opposite the umbilicus.* As stated above, all the deaths last year occurred during the first three days, only one dying later in the disease. In this case the whole of the left lung was in the third stage.

More negroes than whites die in proportion to the number attacked, although the cases are about evenly divided between the two races. The number of each race in prison is about the same.

The mortality last year of primary uncomplicated cases was 8 per cent., six deaths in seventy-five cases. When the character of these cases is considered, it must be confessed that this is a low rate of mortality. I would remark here, that since I have followed my present plan of treatment, I have not lost a single case of pneumonia or capillary bronchitis in private practice. I have in this time (since Jan., 1873) treated twenty-three cases, the age ranging from three months to eighty-one years.

The usual causes of death from pneumonia, according to Niemeyer, are hyperæmia and collateral œdema in the first stage, extensive inflammation in the second. A very high temperature also may produce an unfavorable termination; but by far the most usual cause of death is exhaustion after the second stage is completed. As my cases died (with the exception mentioned) during the first three days, death must have been produced by hyperæmia, œdema, or vast extension of hepatization. The physical signs, the immense quantity of frothy sputa, and the autopsies induce me to believe that collateral œdema was the principal cause.

When a patient with pneumonia presents himself at the hospital, he is thoroughly bathed with warm water, a mustard emetic is then given, and free vomiting is produced. The bowels, if constipated, are moved with some saline, generally magnes. sulph. and potass. bitart. The whole of the affected lung (or lungs, as the case may be) is enveloped in a turpentine stupe, and this remains until the second stage begins. Warm, moist applications are now applied, either woollen cloths wrung out of hot mustard water, or flax-seed poultices covering the whole lung. So soon as his bowels are opened, he is given the carb. ammonia, fifteen grains in mucilage acaciæ every three hours, with three grains quinine with each dose. From the beginning his diet is most liberal, consisting of beef-tea, milk, eggs, &c. As soon as the second stage sets in, whisky is added to the above, p. r. n Sometimes as much as one and a half pints or a quart being administered in the twenty-four hours. The carb. ammonia is kept up until resolution has been fully established, as is the quinine. Opium is rarely given, especially in the latter stages. I rely more on the turpentine stupes to relieve pain. If there is not much accumulation in the bronchial tubes, ten grains of Dover powder are given at night. Blisters are not often used. But when the dulness, &c., remains longer than is usual, blisters have been used with marked success.

This, then, is the treatment for the ordinary cases. When the temperature is high, say 104° or 105° (occasionally 106½ and the patients ultimately recover), quinine is given in large doses (10 and 15 grs.) for its antipyretic effect. If this is not sufficient, the wet pack is used to assist in abating the fever. I have tried Niemeyer's plan of cold-water treatment for the pneumonia proper, but have not been gratified with the effects. I use the cold water only for the purpose mentioned above. I have also tried to relieve the collateral œdema by bleeding, but have abandoned this method and substituted for it a mustard emetic. I have reason to believe, that by the timely administration of the emetic, more than one life has been saved. Towards the latter stages, if the pulse should become weak and frequent (showing a weakened action of the heart from exhaustion) digitalis has been used with gratifying results. I have frequently found it beneficial, if there should be any decided typhoid symptoms, to administer a solution of potass. chlorate and mur. tr. ferri in connection with the above, say 5 grs. potass. chl. with 30 gtt. mur. tr. ferri every four hours. Recently very many of my cases, both in the prison and out, have had malarial complications. These are shown by a difference of at least 2° or 3° between minimum and maximum daily temperature and are almost certain to be present when the temperature is reversed, that is, when the fever is higher in morning than in the evening. Herpes, also, is most frequently present in abundance when there are malarial features. Large doses of quinine, as much as ʒ i. per diem, have always removed this trouble.

I have tried other treatment than this with my pneumonia cases; for instance, sol. ammon. acet., ipecac, calomel, nitrate potass, etc., but finally abandoned all these and adopted the treatment above mentioned. I have reduced the mortality of pneumonia in the prison more than 50 per cent. by this plan. It may be said that a treatment which shows a mortality of 8 per cent. should not be relied on. In answer to this I say, that very few men can realize the fearful cases with which I have to contend. My men are convicts, have lain in dirty county jails, been poorly fed, exposed to all sorts of weather, broken down (many of them) in body and spirit, and in addition to all this, have attacks such as would produce a greater rate of mortality in persons more fortunately situated, under most of the plans of treatment now followed. This fact also I will mention again, that I have not lost a single case of pneumonia, in private practice, since adopting my present treatment. I can recall five cases of double pneumonia, in my own practice and in consultation, which I firmly believe would have died under any other plan than the one above.

I do not claim anything new or startling in this treatment; but I have found it difficult to impress some of my medical brethren with the value of carb. ammonia used from the *very beginning* of the attack. How this medicine acts, I do not know. If it succeed by preventing hyperinosis, why would not large doses of any other of the alkalies do as well? If by its stimulant properties, why will not other stimulants accomplish similar results? I do not believe that it does much good as an expectorant, as both my reading and experience teach me to rely but little on expectorants in pneumonia, a good mustard emetic being the best I know. I believe that carb. ammonia exercises some specific influence on the air vesicles themselves; this, however, is a quæstio vexata which wiser heads than mine must determine.

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Exhibition of Life-Saving Apparatus.—The Royal Life-Saving Society of Belgium has arranged to hold an international exhibition of life-saving appliances for safety, ventilation, and health at Brussels, in June, 1876. The machinery and apparatus to be exhibited will be classified as follows: 1, for saving life in case of fire; 2, in case of shipwreck or drowning; 3, in case of accident from locomotion on roads and railways; 4, in case of war; 5, for health and sanitary measures; 6, for health and ventilation in mines, factories, and workshops; 7, for household and private hygiene; 8, for institutions, associations, and societies organized for improving the condition of the working man; 9, for medicine, surgery, and pharmacy in their relation to the above classes.

Progress of Medical Science.

Treatment of Acute Rheumatism by the Packing Process.—Dr. Dowse, of London. has recently been advocating the above method. He says the first thing to do in the treatment of rheumatic fever is to eliminate the acid products of the diseased state; and the next, to relieve pain. To bring this about he has been in the habit of packing most of his cases in a wet blanket, and then rolling them up in dry blankets, so as to produce profuse sweating, and also increase the temperature. Finding that this method gave good results, he adopted a systematic mode of procedure, which he thus describes: The bed is covered with India-rubber sheeting; over this is laid a blanket which has been wrung out of hot water. The patient is then enveloped in the blanket, and covered with six folds of dry blanketing By this the temperature is raised, and profuse sweating results; the former, if need be, is assisted by the administration of brandy in half-ounce or ounce doses every hour, and the latter by freely drinking warm milk and water. If the temperature exceed 102 F., the stimulant is unnecessary. The treatment is continued for three days. He finds that after the third pack the pain completely subsides and the sour taste usually disappears. He gives the detailed histories of six cases, taken from some thirty which had been submitted to the packing process, and of which only one had failed of success. The author is of the opinion that the constitution or age of the patient does not so much influence the duration of the disease as the season of the year and state of the atmosphere, and he has repeatedly observed that if a patient with acute rheumatism in one ward had a relapse, it invariably followed that patients in other wards were similarly influenced. To carry out the treatment without failure, the prescribed regulations must be strictly adhered to.—*British Medical Journal*, January 23, 1875.

Optic Neuritis with Recovery under Treatment.—At a recent meeting of the Clinical Society of London. Dr. Thorowgood reported a very interesting case which he had observed with Mr. Vernon, and called attention to the value of ophthalmoscopic examinations in cerebral disease, and the efficacy of mercury in effecting a cure. The patient was a girl, aged 12, who gave the following history: Five weeks previously she received a blow upon the lower part of the back. Liniments were used and she was quickly relieved. But a short time afterwards, however, she felt pain in the back part of her neck, and it was accompanied with tenderness, swelling, and stiffness. A week later she noticed a fog before her eyes, and it gradually increased until vision was completely lost in both eyes, the patient being only able to distinguish between light and shade. On examination with the ophthalmoscope the optic discs were found swollen, with irregular outlines; the veins were engorged and obscured in places; the fundus oculi was paler and more yellow than usual. There were no hemorrhages. The same description applied to both eyes. The urine was free from albumen; the thoracic organs were healthy.

Leeches were applied to the temples, and three grains of mercury with chalk were given every three hours. Subsequently the liquor hydrargyri perchloridi was given in thirty minim doses three times daily. Under this treatment, in combination with iodide of potassium and the liquor strychniæ with iron, the patient improved, and two months after the commencement of the treatment was able to read well. After the lapse of two more months she was again seen and her vision was declared normal. The left eye was rather better than the right. which was perhaps not quite up to the normal range. The optic discs looked pale and anæmic. In commenting on the case both authors regarded it as one of true optic neuritis, and not of *stauungs-papille* or "choked disc." The principal lesion was thought to be basic meningitis, extending to and involving the optic nerves. It was believed also that this case was proof of the value of the ophthalmoscope in detecting meningitis, and showed the appropriateness of local depletion and mercurials in affections of this sort.—*British Med. Journal*, Jan. 30, 1875.

Ephemeral Paralysis.—The loss of function in the arm or leg of a child may often simulate a paralysis symptomatic of a lesion of the nerve centres. The physician adopts the idea of a paralysis, while there is often only a muscular atony which disappears in a short time, as in the following cases. narrated by Simon in the *Gaz. des Hôpitaux*, No. 125.

A child, eight months old. was thought to have had a paralysis of the left arm for two days. The sensibility was maintained; the muscles appeared to be more than usually painful; there was no luxation or fracture of any of the bones; the other functions were normal. The history pointed to a compression or jolt communicated to the shoulder-joint by the nurse. Warm fomentations with a liniment of belladonna, jessamine. and laudanum were ordered. The arm was enveloped in wadding, covered with India-rubber tissue, and the child recovered in two weeks.

A child. five years of age, after sitting on the grass for some time with its right leg flexed under the nates, was unable to move the limb on rising. Sensibility was diminished, and motion was impossible, while it was quite certain that there was neither fever nor any injury such as fracture or dislocation. By the same treatment as in the other case all the symptoms of paralysis ceased in three days.

The author calls the attention of physicians to the diagnosis, treatment, and prognosis of such temporal or rather false paralyses.—*Giorn. Veneto di Sci. Med.*, Dec. 1874.

The Pathology of the Great Sympathetic.—Dr. A. De Giovanni has made a preliminary report (*Atti del R. Ist. Lomb. di Scienze Med.*, May 21. 1874) on some original investigations made to determine the extent to which these nerves alone may constitute an anatomical basis of special forms of disease. Several interesting cases are presented, among them one of a man forty-three years of age. who had gastric derangement, occasionally experienced a pricking sensation in the right border of the tongue near the apex, then a painful smarting, and at last a sensation of enlargement of the organ. The tongue began to swell, and then becoming too large for the oral cavity, protruded so as to embarrass respiration. This phenomenon occurred at intervals of from twenty to thirty days, ceasing sometimes on the application of ice, and occasionally after scarification, but it always occurred in connection with abnormal gastric functions. One day after the application of the ice the tumefaction of the tongue disappeared, as if by enchantment: but in a few hours an erysipelatous redness and swelling appeared on the scrotum and. in the inguinal region, which, however, disappeared after local applications. Two other similar cases of gastric catarrh, with dyspepsia and recurrent enlargement of the tongue, are cited. The lingual symptoms are attributed to a disturbance of the equilibrium of the circulation, produced by anomalous action of the vasor nerves, excited by reflex influence from the stomach. In the three cases an habitual dyspepsia pre-existed, and the tongue became hyperæmic after the principal meal; hyperæmia of the spleen was not followed by other affections of the mouth, and the occurrence ceased after the cure of the gastric affection.

The author, in allusion to the source of the lymphatic elements that infiltrate the ganglia in certain morbid conditions, believes that these elements are derived solely from the vessels, and especially from the proliferation of the nuclei of the vascular walls.—*Giorn. Veneto di Sci. Med.*, Dec., 1874.

ENDOCARDITIS FROM MALARIAL INFECTION.—It is said that an alteration of the blood, produced by paludal infection, may, as in variola, be the cause of endocardial lesions. Among the various species of ulcerous endocarditis it would appear that we must now reckon another as the effect of this form of poisoning. That which follows rheumatism becomes generalized in the entire circumference of the mitral orifice, and gives rise to the formation of a tissue which has a tendency to become organized, like a cicatrix, and thus produces more or less considerable stenosis of the cardiac orifice, and consequently death from impeded circulation. The endocarditis which occurs in puerperal conditions produces, on the contrary, an exuberant vegetative tissue, the organization of which is impossible, and its detritus may carry infection throughout the entire organism. According to Lancereaux this new species of endocarditis is especially localized in the valves of the aorta, and attacks, by preference, those who have been poisoned by paludal miasm. This endocarditis is anatomically represented by tumefactions located at the valves of the aorta, and sometimes at the mitral valve, with prominent vegetations, free or covered by fibrinous deposits. Histologically, they consist of small, round, embryonic elements, formed at the expense of the connective tissue. When these, vegetations undergo a granular fatty degeneration, aneurisms, lacerations, ulcers of the valves, and molecular detritus are formed, which may give rise to embolisms, etc. The symptomatology does not differ from that of the other alterations of the aortic valves; a differential diagnosis is, therefore, almost impossible. A double souffle, with its greatest intensity at the base of the heart, and prolonged to the aorta, and throughout the thorax, is the constant sign. It coincides with cardiac hypertrophy, hepatic hyperæmia, without œdema of the extremities, and with characteristic splenic engorgement. A few slight chills, a paroxysmal fever, vomiting and diarrhœa, anorexia, and dejection are, according to Lancereaux, the general symptoms which assist most in the diagnosis. The adynamic character of the phenomena, the lividity and the pallor, without convulsions, are the most important complements. Its course is more rapid than that of rheumatic endocarditis. A little more than a year suffices for the evolution of the disease, and the fatal termination is not caused by any impediment to the circulation, but rather by an intoxication of the blood; hence the fever and the other phenomena not observed in the former. The prognosis is, therefore, very grave, for therapeutics cannot prevent the softening and the detachment of the vegetations. The septicæmic phenomena should be combated with tonics and antiseptics. Quinine betters the symptoms decidedly.—*Annuar. de Sci. Med. and Lo Sperimentale*, Jan., 1875.

NEUROSIS OF THE JOINTS AND THEIR TREATMENT.—The following summary of the subject is from a paper by Moritz Meyer, of Berlin. Cases of painful affections of the joints, as described by Sir Benj. Brodie, some fifty years ago, under the name of "Hysterical Affections of the Joints," and which often simulate inflammation of those parts, have recently received attention from Stromeyer and Esmarch. The seat of the disease is in the small branches of sensitive nerves supplied to the capsule of the joints, and the integuments in the neighborhood. It is marked by pain, often of such a degree as to prevent the use of the joint, and to result in its fixation in a certain position, being often the only cause of an immobility which lasts for years or for life. According to Berger, it may originate in nervous subjects without any direct cause, while in healthy persons it is often the result of mental or emotional causes, of trivial or more serious injuries of the joints, or of irritations reflected from the gastric, urinary, or genital organs. Its discrimination from an inflammatory affection, especially when it is ascribed to a traumatic cause, is of great importance, particularly in reference to the treatment applicable to one or the other case. The following points will aid in differentiating it from affections which it resembles. 1. Nocturnal pain is commonly absent. 2. The joint will be found more sensitive to slight movements and handling than to rougher manipulation. 3. Œdema and swelling of the skin and cellular tissue are often observed to appear and then vanish. 4. There are sometimes periodical changes in the temperature of the affected joint. 5. The muscles are relatively but little shrunken in spite of long periods of absolute rest. 6. There is great want of agreement between the trivial objective symptoms and the severe complaints of the patient. 7. It is often possible to bend the joint without complaint of pain, when the patient's attention is distracted. A spontaneous cure is not unfrequently wrought by a variety of causes working through the mind or passions, and where the affection is of reflex origin, by the cure of the primary disease. Stromeyer and Esmarch have attained the best results by a general tonic management, supplemented by the kneading and passive motion of the affected joints, and they specially emphasize *the active use of the limb.* To these remedial measures Meyer adds the recommendation of a strong induced electrical current, to be applied directly to the painful joint, for which he claims anæsthetic and anodyne effects, as well as an excellent sedative effect upon the mind of the patient. Meyer appends an account of four cases observed by himself in which the results of faradization are well illustrated, and also one of Esmarch's, where he and Stromeyer proved most strikingly the efficacy of the treatment by active exercise.—*Sitzungsbericht der Berliner med. Gesellsch.*, 1874.—*Allg. med. Central-Ztg.*, Jan. 13, 1875.

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IMPROVEMENT IN THE ELASTIC TOURNIQUET.—At a recent meeting of the *Glasgow Pathological and Chemical Society*, Dr. David Foulis showed an instrument he had devised for fastening the ends of the elastic cord used as a tourniquet in Esmarch's method. It consists of two connected metal tubes: one to hold the band, the other to catch it at any degree of tension. To apply it, the band is stretched across the limb, the catch being in the middle; the ends are then passed under and around the limb, and brought up and slipped into the slit of the upper tube while on the stretch. The expansion of the India rubber, on relaxation, fixes the ends finally in the catch. To remove the pressure the ends are stretched, and, while thus narrowed, are lifted out of the catch.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE PROPOSED AMENDMENT TO THE PRESENT MEDICAL LAW.

A NEW Medical Bill has been presented to the State Legislature during its present session, which may be considered as an amendment to the law now in force regulating the practice of medicine. In another column we publish the Bill in full, and would direct the attention of our readers thereto. There is certainly plenty of room for improvement in the present law, but any one who studies the provisions of the new one proposed will hardly be assured that any great advance has been made. On general principles we are opposed to medical legislation; we have had too much of it already, and it is a matter of congratulation that the profession is beginning to find it out. However, it becomes us to be reasonable, and discuss every matter from an impartial stand-point. Every proposed law affecting either directly or indirectly the interests of the profession deserves consideration.

In a previous number we alluded to the deficiencies in the present law regulating the practice of physic in this State. The proposed amendments to this law, with one or two exceptions, really amounts to nothing, and may in the end tend to multiply the difficulties and swell the perplexities under which we already labor. As is commonly the case with all laws intended to prevent the spread of quackery, the onus of its support falls upon the profession. The censors of the different County Societies have to perform the greater part of the work, and are more or less responsible for the infliction of the penalties. One of the provisions of this new bill makes it obligatory on the President and Secretary of each County Society throughout the State to cause a written notice, duly signed, "to be served personally upon persons practising medicine or surgery residing in the county in which such society is located." This of itself is a great labor, entailing many responsibilities, and for which no remuneration is to be expected. As a matter of justice, we question the right of any State to press into its service, for its own benefit, one set of men more than another. What right has the government to compel any private citizen to perform public duties? It strikes us that our Legislators should first consult the wishes of the profession on the subject, before taking upon themselves the responsibility of passing such a law.

Not only are the County Societies compelled to notify those practising in their respective districts, but the censors are commanded to examine all such as may have neither diploma nor license. This is another extraordinary provision, which, although it is already in force by the present law, is far from being just to the profession. But this is, perhaps, one of the penalties of an eagerness on our part, in times gone by, to volunteer our labors so gratuitously to prevent the spread of quackery. We have heretofore made our lawgivers believe that we were so personally interested in such laws, that there was so much benefit to be gained in their enforcement, that we were only too willing to do everything toward that end.

Although in the proposed amendment the District Attorney is the prosecuting power in case of violation of the law, the society is, after all, compelled to be an accessory to any legal action. Here again we have the old story. As a profession we do all the work to fulfil a law, and then are compelled to shoulder the responsibility in enforcing it. The ostensible object is to prevent the people from becoming the victims of quackery. By carrying out this object who are most benefited—the people or the profession? It is perfectly proper for the State to look to the profession to decide upon the qualification of men to practise an art, but it is equally proper that all who perform such labor should be suitably remunerated.

As the case stands at present, there are not enough redeeming features in the proposed amendment to make it necessary to add another page to our statute books, or to make it worth while even to modify the obnoxiousness of the present law by attempting to make it a little more consistent. We should much prefer to have it as it is, hoping for the speedy arrival of the time when it shall be repealed altogether, and the profession placed on its former footing.

THE ARMY STAFF RANK BILL.

CONGRESS has adjourned. The Chairman of the Military Committee of the Senate, Mr. Logan, of Illinois, refused to allow anything to be done with the Army Staff Rank bill. This extraordinary procedure deserves notice in connection with the numerous petitions from the medical organizations all over the country. There is little doubt, however, that the bill would have passed both the House and the Senate, if it could have been brought before them. We shall take occasion at some future time to discuss the situation more in detail. Neither the profession nor the medical staff of the Army need be disheartened at the defeat, as such was insured more by political trickery, than by any failure on the part of the advocates of the bill, to do everything calculated to bring about the much desired result.

MARINE HOSPITAL SERVICE.

OUR readers will be pleased to learn the fate of the bill for the increase of efficiency in the Marine Hospital Service, which has been noticed several times in these columns. When the bill was placed on its passage in the Senate, an amendment was offered striking out Sec. 7, which provided for permanent staff organization, and that amendment being adopted, the bill was then passed. Just before adjournment the House also acted favorably upon the bill, and, with the approval of the President, it became a law. The office of the Chief of the Service only was raised out of the political arena. The Supervising Surgeon-General, as the new title stands, will hereafter be a commissioned officer. It is particularly gratifying to us to notice that in the final action upon the bill, the salary of this gentleman was restored nearly to the original figure.

The present Supervising Surgeon, Dr. John M. Woodworth, having made the office what it is, will of course receive the permanent appointment as his reward, which indeed he well deserves. Practically, he had already, under the Civil Service rules, secured the advantages of the commission for the staff of the Marine Hospital Service, no one having been allowed to enter the service since December, 1873, except upon the recommendation of a board of medical examiners. Now, that the principle is firmly established in the appointment of the chief, we shall look for a steadfast improvement in this important branch of the public service, and we bespeak for Dr. Woodworth and his earnest confrères the cordial support of every member of the profession.

Reviews and Notices of Books.

SURGICAL EMERGENCIES, TOGETHER WITH THE EMERGENCIES ATTENDANT ON PARTURITION AND THE TREATMENT OF POISONING. A Manual for the Use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Davenport. Philadelphia: Lindsay & Blakiston. 1874. 12mo, pp. 183.

THE number of emergencies which constantly arise in the practice of every family physician is always considerable, and so much depends upon his readiness to meet them, that too much importance cannot be attached to their study. The little work before us is one which helps to supply the text for such a study, and so well does it fulfil its design that it is hard to distinguish its different points of excellence. The arrangement of the subjects is very judicious, and the descriptions of the various operations are graphic, terse, and intelligible. Of course all the directions which are laid down for the treatment of the different accidents are to be found in the larger text-books; but to any one who is not a practical surgeon, they do not make such an impression upon the mind as when arranged by themselves in a small hand-book. This is one of the recommendations of such volumes to the general practitioner, who, although he is not expected to be a surgeon, is constantly liable to be called in many of the most trying cases in which the prompt exercise of the right sort of knowledge may be the only means of averting sudden death. It is needless to particularize the number of such emergencies, as they at once suggest themselves to every one in active practice. We do not even pretend to catalogue the large number which are referred to in the work before us, but shall only allude to a few of the most important. In the injuries about the head we have the different methods of treatment given as applicable to each case. The operation of trephining, probably the most important one that is called forth by an emergency is very well described. In severe epistaxis Bellocq's canula is recommended, and its mode of application illustrated. The same may be said for the India-rubber bag, preferred by many surgeons. In fracture of the spine great stress is laid upon the avoidance of all motion of this part at the time of accident. As regards the wounds of the eye by foreign bodies, every one of the simple operations is described. The chapter on injuries of the œsophagus, and the choking from foreign bodies lodged in the tube, are judiciously treated, and the method of using the different probangs is given. The author has, however, omitted reference to a very ready remedy for ordinary choking (*i.e.*, when the foreign body is not impacted), viz., the smart slapping of the back. But it is to be presumed perhaps that every physician is already well acquainted with it. Laryngotomy and tracheotomy are two of the very important operations which we are sometimes compelled to perform at once. In the descriptions of these, as well as those for hernia, the author has fully appreciated the wants of the practitioner. Catheterization is another subject well treated, while ample space is given to the description of the operation of aspiration, which of late has become so fashionable. Fractures and dislocations also make up a part of the work, which, although well enough in their place, are not as important as those sections which are devoted to the other subjects. Notably, in this latter connection, we may mention the chapters devoted to the emergencies of parturition and poisoning. As a whole, this work is well calculated to fulfil the design for which it was written, which is the best of all recommendations. It is well illustrated and well printed.

PULMONARY TUBERCULOSIS. By ADDISON P. DUTCHER, M.D. J. B. Lippincott & Co., Philadelphia. 1875, pp. 380.

DR. DUTCHER has written a work, in thirty-nine chapters, on Pulmonary Tuberculosis. He tells us in his preface that he claims no special originality for his work, but thinks it will be none the less valuable to the profession. Duty, he remarks, prompts him to the work, and to contribute his mite to the advancement of medical science. We think that Dr. Dutcher does himself injustice; his work is original to a remarkable degree. He has constructed one of the most curious pieces of patchwork that we have ever seen. His ingenuity in selecting from various authors theories which are obsolete, and in twisting and confusing the facts which are to be found in every textbook, is something truly remarkable. We can compare it to nothing but to a newspaper reporter's rendering of some scientific discourse, preserving all the names and omitting all the sense.

The pathology seems to be taken from Lebert. It states, in its most naked form, the old doctrine of tubercle corpuscles.

The description of the physical signs seems to be the result of reading Dr. Flint's work, without understanding it. The account of the general symptoms and the directions for treatment are the least objectionable features in the book.

The fine writing and the moral reflections are, without doubt, all Dr. Dutcher's own. Here is a sample: "There is a chastened and holy pleasure in administering to the wants of one who is standing, as it were, upon the verge of the better land. The silent chamber where the messenger of dissolution waits for his expiring prey, is often the gateway to eternal life. And oh! how often, as I have felt the last throb of the pulse, heard the last breath, and seen the last flash of the eye, as the soul escaped from its earthy tenement, have I been reminded," etc.

From this short extract it may be seen that the medical patchwork is held together by the most ornate reading. But the worst feature of the book is, that it is impossible to read it without feeling that it is intended, not for the medical, but for the general public; not as a contribution to medicine, but as a business advertisement.

Syphilitic Lesions of the Osseous System in Infants and Young Children. By R. W. Taylor, M.D., etc. New York: William Wood & Co. 1875. 8vo, pp. 179.

The author of this essay is already favorably known by his contributions to our knowledge of that rare manifestation of syphilis, *dactylitis syphilitica*, and other subjects connected with syphilis and diseases of the skin. The lesions which he now analyses have generally, as it appears, been confounded with those of rickets. Their comparative frequency, together with the somewhat rare occurrence of well-marked rickets in this country, should have led to the early recognition of their nature by American observers; but the demonstration of their origin in syphilis was reserved for Wegner, of Berlin. As Wegner's article, however, dealt wholly with their etiology and minute anatomy, and as the contributions of others have been only fragmentary, a systematic consideration of them from a clinical point of view was still needed. The essay before us fills this gap very thoroughly and satisfactorily.

Dr. Taylor's work is founded upon an analysis of sixteen cases, which were closely and carefully observed by himself, and upon forty-eight cases recorded with more or less completeness by others, including twelve by Wegner, twelve by Waldeyer and Köbner, seven by Parrot, three by Bärensprung, two by Fournier, two by Bulkley, and one each by Roger, Curtis Smith, Bertin, Archambault, Putegnat, John Morgan, Ranvier, Bargioni, Valleix, and Guéniot. Twelve of the author's own cases occupy twenty-six pages in their recital, being given with great fidelity to detail; the remaining four were observed during the progress of the work. Of the other cases, which take up thirteen pages, some are given *in extenso*, while others are merely outlined, the pathological minutiæ being reserved for consideration in a subsequent portion of the book.

The comparative frequency of osseous lesions in the early period of infantile syphilis is exemplified by the fact that two of Dr. Taylor's patients were sisters, of whom the elder was infected from the younger. There are other points of interest apart from the mere study of the osseous lesions; for instance, in one case the mother imputed her child's trouble to vaccination, although she herself had been under treatment for syphilis.

The bony swellings, which constitute the lesions more particularly described by Dr. Taylor, always occur in the case of the long bones, at the junction of an epiphysis (generally the distal one) with the shaft. This localization of the morbid action the author refers to the greater intensity of the normal processes of ossification going on in those portions of the shaft and epiphysis which adjoin each other. They end either in resolution or in degenerative changes, the accidental occurrence of diastasis being occasionally met with, in which case there is a condition requiring treatment as for fracture. In one case, reported by Putegnot, degeneration of the swelling was followed by dislocation of the head of the femur, a fact which, as the author remarks, shows the importance of the early recognition of this syphilitic lesion of the bone, and the necessity of prompt and efficient treatment.

Six sections of the work (thirty-seven pages) are devoted to a detailed description of these lesions. These descriptive details are very carefully given, and are of great importance, although they might strike the reader as being unnecessarily prolix. Doubtless greater accuracy is secured by the plan of a separate account of the features of these swellings for each particular bone which they have been observed to invade, although terseness and vividness are thereby necessarily more or less sacrificed.

In the thirty-five succeeding pages the clinical history of these manifestations is still further traced as regards the development, course, and distribution of the bony swellings; their effects upon the integument and upon the joints; the degenerative changes which may occur in them; the accident of the separation of an epiphysis from the shaft of a bone; the symptoms induced by the swellings; the periostitis of the hereditary syphilis of infants; the effects of the osseous lesions upon the ultimate structure and shape of the bones; the period of the disease in which the lesions occur; the question of the development of similar lesions in acquired infantile syphilis; their value as an index of the intensity or activity of the disease; and the condition of the disease in the mothers of the affected children—which considerations, it will be seen, very thoroughly cover the ground occupied by the pathology of the bony manifestations of syphilis in children. The matter is ample, and the manner of its treatment is satisfactory.

The succeeding section treats of the pathological histology of these bony swellings, and the author has evidently taken great pains with this portion of his subject. The result is a compact and admirably clear description. In a short section on the relations between syphilis and rickets, Dr. Taylor is equally happy, showing, by a very vivid line of argument, that rickets cannot be directly due to syphilis, although the syphilitic cachexia may lay the foundation of those errors of nutrition upon which the rickety condition depends.

The diagnosis of these affections is fully and judiciously considered, which involved the consideration of many lesions of similar appearance, but not dependent on syphilis.

The treatment which the author prefers consists mainly in the use of the corrosive chloride of mercury, in combination with iodide of potassium. This treatment should be kept up for a considerable length of time, taking care to so manage it as to avoid producing derangement of the gastro-intestinal functions; judicious auxiliary measures, chiefly designed to improve the general condition, are also mentioned, together with the local treatment called for by ulcerative degeneration, and the surgical management of diastasis.

The remainder of the volume is principally devoted to a comparison of the characters of these lesions with those of certain other osseous affections, syphilitic and non-syphilitic.

We earnestly commend the work to our readers, as being a very creditable digest of facts which have been observed by the author, and a critical analysis of those which have been recorded by others. Dr. Taylor's style of writing is, in general, simple and clear, and his concise way of putting facts will go far to make the subject readily understood. In very many instances he uses wonderfully expressive words; but, on the other hand, the book contains many phrases which may perhaps be considered inelegant. Prominent among these, we may mention the expressions, "mixed treatment," "five drops of the mixed treatment," "clinical cases," "twice thicker than usual," and "clinical practice." There is also an occasional crowding together of adjectives before a noun, which is foreign to the genius of the English language. Grammatical and typographical errors are few in number.

Among the latter we notice, that in the section devoted to casuistics, there is a lack of uniformity of style in numbering the cases quoted from other observers—some being numbered in Roman and some in Arabic numerals, while others are not numbered at all. The book is well printed, on heavy paper, and its general appearance is very creditable to the publishers.

All things considered, we must congratulate Dr. Taylor on his admirably thorough and systematic elaboration of a department of pathology which, notwithstanding the fragmentary contributions of others before him, is now for the first time presented to the profession in a finished form.

CLINICAL LECTURES ON DISEASES OF THE NERVOUS SYSTEM. By WM. A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the University of the City of New York, etc., etc. Edited by T. M. B. CROSS, M.D., Assistant to the Chair of Diseases of the Mind and Nervous System in the University of the City of New York, etc., etc. *Nil desperandum.* Published by D. Appleton & Co., No. 551 Broadway, New York.

THIS book is made up of Clinical Lectures, delivered at the New York Hospital for Diseases of the Nervous System, and at the Bellevue Hospital Medical College. It contains 289 pages, which are divided among different subjects, twenty in number. In general, there is a fair statement of the commonly accepted theories upon the etiology and pathology of the diseases considered. The editor has done his work very well, and the book is among the number to be read by those who wish to read everything that is written upon diseases of the nervous system.

HOW CHILDREN'S DISEASES ARE TREATED.—It seems as if Bismarck must have set the following stories in circulation as aids in his warfare upon the abuses of the Church. It is related by Dr. Kruger in the *Bayer. Aertzl. Intell. Blatt.*, that among the population of Schongau, in Upper Bavaria, the vomiting and purging of children artificially reared is thought to be a curative effort of nature. When a child is very sick they hang up his soiled shirt in a neighboring shrine, and from the day the pilgrimage begins the little victim is neither to have medicine, to be bathed, or have his clothes changed. In Munich also many children are treated with "Consecrated Life and Death Powders," purchased at a certain convent.—*Rundschau*, Dec. 1874.

Reports of Societies.

ACADEMY OF MEDICINE.

Stated Meeting, Feb. 18th, 1875.

DR. S. S. PURPLE, PRESIDENT, in the Chair.

THE paper for the evening was upon "Reparation of Brain-tissue after Injury," by John P. Gray, of Utica, New York.

In the absence of Dr. Gray, the paper was read by Dr. S. Oakley Vanderpoel.

It consisted mainly of the history of cases in which severe injury to the skull had been sustained.

The first case was a lad ten years of age, "The boy Galli," who had sustained a severe fracture of the skull on the side of the right frontal bone. No unconsciousness followed. The sides of the face at the time of the injury were smeared with brain-substance, and when a portion of bone was removed from the wound, a portion of brain-substance was forced through the opening. The convolutions of the brain were apparent. At different times during the process of the case masses of the size of a pigeon's egg, and a hen's egg, were removed, either with the knife or ligature. No microscopic examination of the masses removed was reported. A free opening was maintained for the discharge of pus and serum, which at times was considerable. On the sixty-eighth day all the general symptoms had subsided. Slight pressure was made upon the then protruding mass, and in a few days it returned within the cranium. On the ninety-eighth day the wound was nearly healed over.

The child finally recovered entirely, but was deaf. The case was under the personal care of Dr. Hutchinson.

The second case reported was that of a soldier, forty-one years of age, who was wounded in the head by a Minié ball. Forty-eight pieces of bone were removed, but the report did not state whether there was any loss of brain-substance. The wound healed, and for five years he remained in good health.

His general health became impaired in 1868, and finally melancholia was developed. He was received into the asylum, and, after a few months, discharged cured. In 1873 he was again admitted to the asylum, and fourteen months after his admission was profoundly melancholic, and finally died.

Autopsy.—No attempt had been made at bony reparation. The arachnoid and pia mater were renewed (at least were present), and no traces of the injury could be detected in the brain-substance. The convolutions were fully outlined, and resembled the convolutions upon the unaffected side of the brain.

The case of Anthony Gaige was referred to, who had a tamping iron driven through his brain, by the premature explosion of a blast. (Vide *American Journal of Medical Sciences* for July, 1850. Mention is also made of the case in "Dalton's Physiology.") Three cases of attempted suicide were mentioned in which the pistol-ball entered the skull and remained. In each case pressure was exercised over the wound during the progress of reparation.

DR. BUCK reported cases in which there had been a loss of brain substance, followed by recovery of the patient. The patients, apparently, were completely restored, for they were in good health and engaged in active business after their recovery.

DR. CARO related the history of a case in which the man fell from a scaffolding and struck square upon his feet, was immediately paralyzed, and fell over. The patient was subsequently trephined, and about a tablespoonful of pus and blood was removed. Symptoms immediately relieved. Protrusion of brain matter followed. It was tied off. The patient made a good recovery. Has been in good health since his recovery, and only has a slight defect in his memory.

Dr. Buck regarded the protrusion in these cases of so-called hernia cerebri as a compensating process to make room for the suppuration. He had also noticed that the incision of the brain matter was not attended by painful sensations.

Dr. Peaslee was of the opinion that it had not yet been proved, unless by the cases of Dr. Gray, that the convolutions of the brain have actually been reproduced after a certain amount of brain substance has been removed. It has been well settled that nerves have been reproduced. If the protrusion is a protrusion of newly-formed brain substance, he could not see the propriety of removing it. There would be no danger of the formation of too much brain tissue, but probably the apparent redundancy would be absorbed, and finally all be returned to the cranial cavity. It seems to have been the opinion of Dr. Gray, regarding the mass of substance extruded in the case of the boy Galli, that if it had been left undisturbed it would finally have disappeared within the cranial cavity.

Again, with regard to the process of repair, is it necessary, in order that brain substance be repaired, that solution of continuity shall first be filled up with connective tissue, and then within the meshes of that, brain substance be formed? Dr. Gray refers to finding a large amount of connective tissue present.

If we can reason, *à priori*, we should expect that brain tissue would be restored from necessity. All the other tissues of the body are in keeping with the law of necessity restored, and certainly of all tissues in the human body, brain-tissue is most needed. Unless we can say that one hemisphere is sufficient to carry on all the functions of the brain, we must say, in certain cases, that there is a restoration of brain substance.

Prof. Dalton remarked that the direct point with regard to the paper was concerning the proof it furnishes with reference to the actual restoration of brain substance after its destruction and removal. This was the first point of interest. In the case of the boy Galli, it was very certain, from the record, that a portion of brain substance had been actually removed. Now the question arises was that portion reproduced? Dr. Dalton said that he felt obliged to acknowledge that he did not see the direct proof of this reproduction. A large quantity of new tissue was produced and removed by the knife, but the paper did not state that this newly formed substance had been examined by the microscope and found to be composed of true brain-tissue.

If the successive protrusions, sometimes as large as a pigeon's egg, or even a hen's egg, had been thus examined and found to be composed of brain-tissue, then we could say positively that the substance of the brain had been reproduced. But at present we can hardly assert this as being directly proved, and are rather left to infer it from one item in the record—namely—that the boy recovered with a complete or almost complete restoration of his mental and bodily faculties. But he was not so sure that this could be relied on as absolute proof of actual restoration of brain substance; for it is believed by many that the two hemispheres are capable of acting each for the other, and, so far as we understand their physiological action, we cannot look upon it in any other light. A simple recovery of the mental faculties, after a portion of brain substance has been removed, does not therefore prove a regeneration of the brain substance.

In the second case, that of the soldier, the ball was imbedded in the brain substance. There is nothing, however, in the record to prove distinctly that there was any great actual loss of brain substance. It is not very easy to understand how a ball, sent with sufficient force to penetrate the skull and become imbedded within the brain substance, could do so without destroying more or less of it; but, at the same time, it would not seem impossible for a ball to penetrate the skull and make room for itself by forcing the brain matter away in some other direction, provided room were afforded by the opening of the cranial bones. He did not think, therefore, that we could say positively, even in this case, that the brain-tissue had been reproduced. We know that certain mental faculties have been sometimes restored after injuries of the brain substance; but in order to say with absolute positiveness that the recovery of the mental powers in any case of this kind was complete, the reporter ought to have known the individual for several years, and should be personally familiar with his character. Suppose for instance, that a man is simply a little more irritable in disposition after such an injury than before; the reporter of the case might overlook such a fact entirely, while the friends of the patient who were intimately acquainted with him might be well aware of the charge. In this way a physician might be led to say, in general terms, that his patient had recovered all his mental faculties; while the friends might notice many things about him which would indicate a permanent change in the man's mental condition.

There is certainly no inherent improbability in the supposed regeneration of brain substance. It is known that nerves may be reunited after division and even after the removal of a portion of their substance; but the cases in which this has been successfully done are nearly all those of very young animals.

The operation as a physiological experiment will usually not succeed in animals that have attained their full growth. With regard to the restoration in the human subject, of a divided nerve which has been simply cut across by a clean incision, it seems to be generally acknowledged by surgical practitioners that as a matter of fact, this does not very frequently happen. When a nerve, either sensitive or motor, is divided in one of the lower animals the first effect of the section is of course abolition of function. After that a degeneration of the nerve-fibres takes place beyond the point of injury, and that is a comparatively long process.

In the course of four or five days after section a motor nerve loses its irritability. That condition generally lasts about six weeks; then the power of motion becomes gradually restored, a similar process occurs in the degeneration and restoration of sensitive nerves. When the operation is successful the final result is a restoration of the nervous functions, but only after a considerable interval of time.

Recently doubt has been thrown upon many cases previously reported, and it is said that an accurate examination fails to show in most of them complete evidence of the restoration of nervous function.

When a practitioner reports cases in which sensation and the power of motion are said to have been restored in the paralyzed parts, he is not always careful to distinguish between the restored sensation which strictly belongs to the divided nerve, and what is called *supplied sensation*, which may come in play in consequence of the activity of other nerve-fibres derived by anastomosis from adjacent branches when sensibility is found to be restored to a paralyzed part within twenty-four hours after the division of its nerve, this sensibility is without doubt supplied by some other nerve, which has not been divided, but only temporarily paralyzed by the shock of the injury. If the examination for sensibility in these cases be made rather roughly, as by means of the points of a pair of ordinary dressing forceps, or by simply pinching the skin or by the galvanic current, the shock to the sensitive papillæ which are paralyzed is very apt to include papillæ at a little distance supplied by fibres of a nerve which has not been injured.

The sensitiveness of the papillæ is such, and the anastomosis is so abundant between adjacent branches of certain nerves, that the examination must be made with the greatest care in order to arrive at reliable conclusions.

There is the same difficulty with regard to regeneration of motor power. These conclusions of recent observers certainly are sufficiently plausible to make us take great care in stating that sensation and motion in any instance have been completely restored beyond the point at which a nerve has been divided.

If such a nerve as the sciatic be divided, and if afterwards motion and sensation be restored to the leg or foot, then there could be no doubt of the regeneration of the nerve-fibres; but the cases of this kind which have been reported are mostly those in which the median or ulnar nerve, or one of the branches of the fifth pair, or one of the cervical nerves have been divided, and in those cases there must be great room for doubt with regard to restoration of sensation and motion independently of anastomosis.

It seems to be also true that a loss of function after injury of the brain substance does not always have the significance we might at first attribute to it.

Suppose that a portion of the brain is damaged, and that this injury is followed by loss of sensibility in a particular part. This does not prove that the nerve-fibres which have been cut across are conductors of sensibility; for the reason that any injury inflicted upon the nerve-centres made by sympathetic irritation produces signs which are not directly due to destruction of the nerve tissue, and the evidence of this is that the power of sensibility in such cases will often return before the nerves have been regenerated.

Correspondence.

THE GALVANO-CAUTERY IN THE TREATMENT OF HYDROCELE OF THE NECK.

To the Editor of The Medical Record.

Sir,—The following case, almost an exact duplicate of the one detailed in the No. of The Medical Record of August 15, 1874, p. 425, as cured by Dr. Amussat, may be of equal interest. The patient, Mrs. Catherine Ennis, aged 70 years, general health feeble, had for fourteen years been the subject of a sero-sanguineous cyst of the neck. This, as described by her, had first appeared in the middle line of the neck, just below the larynx, thence had developed prolongations upon either side of the neck. Recently the left lobe had increased in size much more rapidly than the rest of the cyst. In July, 1874, when she first came under my observation, the tumor extended upon the left side from the angle of the jaw above to the sternum below, overlapping the latter to the extent of an inch and a half; filling up the anterior triangles of the neck. The prolongation upon the right side was not more than one-third the size of its fellow-cyst, and when tapped yielded about 8 oz. of sero-sanguinolent fluid. Injected the cyst with a solution of iodine and iodide of potassium. Same treatment repeated in November. As the result of the first injection the tumor was reduced to about one-third its original size. No special benefit resulted from second injection.

January 8, 1875, the sac, having been emptied of its fluid contents, was cauterized as thoroughly as possible by a platinum wire, which had been made to traverse its long diameter, and connected with the galvanic battery. The wire was then withdrawn. This application of the galvano-cautery was made by Dr. George R. Fowler, of Brooklyn. The inflammatory reaction resulting was not sufficient to prevent the patient from pursuing her ordinary household duties. For three or four weeks the sinuses left by the cautery discharged freely.

At the date of this report, about seven weeks from the time of the operation, the sinuses have entirely closed, and the only trace of the tumor remaining is a slight thickening, from inflammatory deposit, which can still be felt in the site of the old sac.

Lewis S. Pilcher, M.D.

4 Monroe Street, Brooklyn, N. Y.,
Feb. 24, 1875.

Medical Items and News.

Amendment of the Law Regulating the Practice of Medicine.—The following proposed amendment to the present law regulating the practice of medicine in the State (Act passed May 11th, 1874, and published in The Medical Record, of Nov. 2d) has recently been presented by Mr. Laning:

Section 1. Every person who shall hereafter practise medicine or surgery in this State, unless such person be authorized to practise by a license or diploma from some chartered school, medical socity or State board of medical examiners, of some one of the United States, shall obtain and is hereby required and directed to obtain, a certificate from the board of censors of some one of the medical societies of this State, either of a county medical society of the county where such person shall at the time reside, or of a State medical society, or from the State board of medical examiners, which shall certify that the board of censors of such society or the State board of medical examiners have examined and do find the person named in such certificate, and to whom the same shall be issued, qualified to practise all of the branches of the medical art mentioned therein; which certificate shall be tested by the signatures of the censors or examiners holding the examination and the seal of such society. And the person to whom such certificate, license or diploma shall be granted shall, before he shall practise medicine or surgery in this State, cause such certificate, license or diploma to be recorded in the office of the clerk of each county in which such person shall from time to time reside. And the clerks of the several counties of this State shall procure and keep suitable and proper book or books, in which he shall record such certificates tested as aforesaid, and such licenses or diplomas whenever presented to be recorded, upon the payment to him of the same fees as required to be paid for recording conveyances of real estate, and shall index, in alphabetical order, the names of the person to whom such certificate, license or diploma shall be granted, noting therein opposite to the name indexed the book and page where such certificate, license or diploma is recorded, the date of the instrument and of the recording of the same.

Section 2. The board of censors of the medical society of each county in this State, shall cause a printed or written notice, signed by its chairman and secretary, to be served personally upon every person practising medicine or surgery residing in the county in which such society is located, except those who have caused to be recorded in such county such a certificate, license or diploma as described in section one, as amended, of the act hereby amended, directing attention to this act, and appointing in said notice a time and place, not less than twenty days nor more than thirty days after the service of said notice as aforesaid, at which said board of censors will convene to examine such persons as shall present themselves to be examined for such certificate as aforesaid. And in case the person upon whom such notice shall have been served as aforesaid, shall not appear for examination before said board of censors at the time and place named in said notice for the convening of said board, nor produce to said board a certificate of the county clerk of said county of the recording of such certificate, license or diploma as aforesaid, such persons shall thereafter be subject to all the provisions, liabilities and penalties prescribed by this act for any violations thereof.

Section 3. It is hereby declared a misdemeanor for any person to practise medicine or surgery in this State who shall not cause to be recorded in the county where he shall reside such certificate, license or diploma as described in the foregoing sections of this act, either prior to or within twenty days after the time named for the convening of said censors, in the notice prescribed in section two as amended of the act hereby amended, or who shall practice under cover of the record of a certificate, license or diploma fraudulently or illegally obtained; any person found guilty of such misdemeanor shall be punished for the first offence by a fine of not less than fifty dollars nor more than one hundred dollars, and for any subsequent offence by a fine of not less than one hundred dollars nor more than five hundred dollars or by imprisonment in the county jail not less than thirty days, or by both such fine and imprisonment.

Section 4. It shall be the duty of the society, whose board of censors has caused to be served the notice required to be served as aforesaid to cause information to be given to the district attorney of the county in which such society is located of any violation of this act; and it shall be the duty of such district attorney to bring all cases of the violation of this act of which he shall receive information, before the grand jury in such county, and to prosecute the same.

Section 5. All fines collected under the provisions of this act shall be paid over by the district attorney to the county treasurer of such county.

Congressional Appropriation for the Naval Bureau of Medicine and Surgery.—Necessaries for vessels, $30,000; repairs of naval laboratory, hospitals, and appendages, $20,000; civil establishment at naval hospitals and laboratory, $35,000; contingent expenses, $25,000. Total, $110,000.

Medical and Dental Graduates.—The Medical Department of Nashville and Vanderbilt Universities has just graduated fifty-eight students. The Medical College of the University of Wooster, thirty; the School of Medicine in the University of Maryland at Baltimore, fifty; the College of Physicians and Surgeons, at Baltimore, thirty-nine; the College of Dental Surgery, in the same city, seventeen; Yale, seven; the College of Physicians and Surgeons, Med. Dep. of the Syracuse University, eleven, one of whom was a female; the N. Y. College of Homœopathy, thirty-nine; the N. Y. College of Dentistry, sixteen.

The University of Leyden recently celebrated its three hundredth anniversary, and numerous honorary degrees were awarded; among others the degree of Doctor in Medicine was conferred upon Herr Bunsen, of Heidelberg; Mr. Darwin, of London; Mr. Milne Edwards, of Paris; and Mr. Spencer Wells, of London.

The English Naval Medical Service.—The following regulations have received the approval of the Queen, on February 4:

"1. That surgeons on entry shall have the same relative rank as paymasters, chief engineers, and naval instructors—namely, shall rank with lieutenants under eight years' minority, and shall have uniforms corresponding to such relative rank.

"2. That staff-surgeons shall be denominated fleet-surgeons, and staff-surgeons second class simply staff-surgeons; the distinction in rank between these two grades to be denoted by a small difference in the uniform.

"3. That inspectors-general shall be compulsorily retired at the age of sixty on £2 per day, provided they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank.

"4. That deputy inspectors-general shall be compulsorily retired at sixty, if in the first six of their rank, at 33s. per day, others at 30s. per diem, provided that they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank.

"5. That fleet-surgeons and staff-surgeons shall be placed on the same scale of retirement as chaplains and naval instructors, secretaries, paymasters: that is, the maximum to be £450 per year, instead of £400.

"6. That any fleet-surgeon shall have the option of retiring after twenty years' full-pay service in all ranks, at 15s. per day, and after twenty-five years' service at 21s., subject in each case to our approval; but that of those now on the list no more than ten shall retire under this clause in each year (the officers having the option according to seniority), unless we should approve (with the consent of the Lords Commissioners of your Majesty's Treasury) of a large number so retiring.

"7. That of the medical officers to be hereafter entered all shall have the option of retiring, subject to our approval in each case."

Statues of Simpson and Livingstone are to be erected in Edinburgh in the East Princes Street Gardens, near the Scott monument.

Dr. Barnes' successor in St. Thomas' Hospital is Dr. Gervis.

A Fainting Midwife.—The sub-editor of the *Union Médicale* relates that a young lady belonging to one of the most respectable families of Paris refused, in her third confinement, the aid of a doctor and was attended by a midwife. After the delivery she was seized with a hemorrhage which rapidly became formidable. Seeing her impotence to meet the emergency the midwife fainted, and during her syncope the woman succumbed.

St. John's Guild.—A "Lady Washington Reception" will be held at the Academy of Music on Tuesday, April 6, in aid of the building fund of the floating hospital which it is proposed to establish under the care of this society.

Prize Essays to be presented to the Committee of the American Medical Association should be sent to Dr. L. P. Yandel, at Louisville, Ky., as Dr. J. D. Jackson, Chairman of the Committee, is spending the winter in Florida, and it is feared that the state of his health will not permit him to return in season to attend to his duties.

Dr. Jüngkers, Professor of Surgery in the University of Berlin, on the 17th of January completed the fiftieth anniversary of his appointment, and was presented by the Emperor with the Star of the Order of the Crown of the second class.

Chloroform Death: Resuscitation by Nélaton's Method.—Dr. Freuzal reports (*Progrès Médical*, January 30), a case in which a child, apparently dead from the effect of chloroform, was recalled to life by inversion and suspension by the feet, and forced movements of the chest. The face and lips were discolored, and there was neither heart-action nor respiration. The effect of inversion was very rapid, and markedly efficacious.

School Hygiene.—The physicians of Eastern Middlesex, Mass., have petitioned the Board of Health to enforce "such rules as will prevent the attendance in public schools of any child residing in a family where there is, or has been, a case of measles, scarlet fever, or whooping-cough, until the physician in attendance on such case of disease shall have furnished a certificate that in his opinion the period of danger from infection is past, and that he knows that the infected premises have been thoroughly disinfected."

"Salt Lake City Medical Society."—The regular practitioners of medicine in Salt Lake City organized a society on the 1st of February with the above title. A constitution and by-laws were adopted, together with the code of ethics of the American Medical Association, and the following officers were elected: *President*, W. F. Anderson; *Vice-President*, J. F. Hamilton; *Secretary*, H. C. Richards; and *Treasurer* and *Librarian*, J. M. Williamson.

Dr. Meredith Clymer.—The remarks upon Dr. Sayre's paper before the New York Society of Neurology and Electrology (vid. page 120), commencing "in view of the absence of those members," etc., should have been credited to Dr. Clymer.

Anti-Vaccination.—A number of the French Canadian physicians of Montreal have formed an "Anti-compulsory Vaccination League." They intend to oppose, by all legal means, the operation of the vaccination law, and to endeavor to procure its repeal.

A new Medical College in Milwaukee is contemplated, and will be the first institution of the kind in Wisconsin. A number of enrolments for matriculation have already been made, and its formal opening is put down for the 15th of March.

New York State Inebriate Asylum.—Drs. John J. Orton, of Binghamton, and William C. Wey, of Elmira, and Benjamin F. Bruce, of Lenox, have been appointed by the Legislature to be managers of the N. Y. State Inebriate Asylum at Binghamton.

Students at the Jefferson Medical College.—The recently issued catalogue of the students at this school shows that four hundred and eighty-three were in attendance during the session of 1874—75, the class of the year before being smaller by ten students.

"Southern Illinois Medical Association" is the title of a new society recently organized at Jonesboro, and of which the following are the officers elect: *President*, Dr. H. C. Hacker; *Vice-Presidents*, Drs. McLain and Wardner; *Secretary*, Dr. G. W. Schushardt; *Treasurer*, Dr. W. C. Lence.

Colorado boasts that one-half of its population consists of reconstructed invalids.

Co-Education of the Sexes in the Michigan University.—The experience of the past year strengthens the position of the women in this institution. The whole class numbered about three hundred and sixty, and of these about fifty were women. As regards preliminary education, the women have the advantage, many of them having previously been teachers, and most of them having arrived at maturity. They have so far carried off a large share of the honors, and it is admitted that they generally stand higher in their classes than the men. The average age of the women is thirty years, while that of the men is twenty-four and a half, the oldest man and woman being respectively forty-five and fifty, and the youngest eighteen and nineteen.

An Epidemic of Trichinosis has appeared in the neighborhood of Hanover. Some 400 persons have thus far been attacked, and of these 21 have died.—*Rundschau*, Dec. 1874.

Electricity a Substitute for Gas.—A Russian claims to have discovered a process for producing light by electricity, which is thus described: A small tube of glass, not more than six inches in length, is filled with a pencil of charcoal, the air is exhausted, and the tube hermetically sealed. A moderate current of electricity is then passed through the charcoal from an ordinary electro-magnetic machine, causing it to glow with a very brilliant, but at the same time soft light. It is stated that the charcoal does not apparently suffer consumption, but lasts for an indefinite period, and that the strength of the current required is so small that two hundred of these lights, at a considerable distance apart can be easily maintained by a single machine. The inventor claims that he can light the whole city of St. Petersburg, both street-lamps, stores, and private residences, by a single fifteen horse-power machine, with no greater cost than that of running the machine.

Weekly Bulletin of Meetings of Societies.

Monday, March 15.—Obstetrical Section of the Academy of Medicine; Medico-Chirurgical Society; N. Y. Society of Neurology and Electrology; Pathological Society of Brooklyn.

Tuesday, March 16.—N. Y. Obstetrical Society; N. Y. Dermatological Society; North-Western Medical and Surgical Society; Medical Society of the County of Kings, "School Hygiene in reference to the Physiological Relations of Age and Sex to Mental and Physical Education." Alexander Hutchings, M.D.; Newark Medical Association.

Thursday, March 18.—N. Y. Academy of Medicine, "Significance of Disturbed Action and Functional Murmurs of the Heart," by James R. Leaming, M.D.; Medical Association of the Eastern District of Brooklyn.

Friday, March 19.—Medical Library and Journal Association, "On the Elements of the Diagnosis in the different Stages of Disease of the Hip-joint." Dr. C. F. Taylor.

Medical Department of Life Insurance.

THE RELATION OF SYPHILIS TO HEALTH AND TO LIFE.

By R. W. TAYLOR, M.D.,

SURGEON TO THE N. Y. DISPENSARY, DEPARTMENT OF VENEREAL AND SKIN DISEASES; PHYSICIAN TO CHARITY HOSPITAL.

Mr. Editor:—If your subscribers are not already tired of the question of syphilis, in its bearings upon health and longevity, I should be pleased to contribute some additional thoughts on this to me most interesting topic. The questions as put by you to Dr. Sturgis (Medical Record of last year) appear to me to cover the ground pretty completely. First, "What influence does syphilis have upon the duration of life as regards insurance?" Second. "Will a man, of the upper and middle classes, who has become syphilitic, reach the age to which he would have attained had he not been syphilitic?" Now, in order to answer these questions, I shall have to consider the nature and course of syphilis as a disease, and also to determine as nearly as possible the condition of the constitution of patients generally, and how they may be affected by it. First, let us determine, if we can, what syphilis is. In my discussion of this subject, you, of course, know that I can only give you, approximatively, statements which are based upon facts and observation; still they will, I think, be such that they will render you material service in the discharge of your duties. My consideration of syphilis will, you understand, be general in its character, and I shall not enter into a detailed description of its manifestations, as such a course would here be inappropriate and unnecessary. Let me remark that I shall not quote statistics, and I mention the fact now because it may be thought that they would throw light upon our inquiry. A careful review of such as are accessible has convinced me fully that we have none at present worthy of reliance, certainly none which will warrant the deduction of conclusions such as are needed at this time. I will here give you an illustration: Zeissl, in his text-book (Lehrbuch der Syphilis, 2d edition, vol. ii., page 83, Vienna, 1873) gives the percentage of deaths by syphilis as occurring in the General Hospital in Vienna. In 1862 the number of syphilitics treated there, male and female, was 1,097, of which eight died. The causes assigned were pulmonary tuberculosis, or nephritis albuminurica, and a woman is said to have died of perimetritis septica. Leaving out of consideration the fact that the further history of a large number of these patients was not known, it is readily seen that doubt might well be entertained whether those diseases causing death were really due to syphilis at all. In fact, many of the reports of chronic disease causing death, which we find in hospital statistics, are utterly unworthy of mention in this light, since the syphilis in many was so remote that its sequence was not accurately traced. Let us cite an instance: A patient, who in his early days was syphilitic, years after dies of, we will say, amyloid degeneration of some of the viscera. Very many, without further inquiry, would establish the etiological chain with syphilis as the cause. I think that there are very many, even intelligent men, who thus argue in a given case in which syphilis occurred in early life, and in which a chronic disease was observed later on, that syphilis is the sole cause, and they rest their inquiry after the fact of early infection is proved. Thus it is that many cases of death are attributed remotely to syphilis, whereas it was perhaps really not the cause, or again, but one of a number of causes. And further, there are undoubtedly many cases in which syphilis was the cause of death, and in which that fact escaped. You can see at the outset how difficult it is to establish, in an accurate manner, the relation of an early attack of syphilis to affections observed years after. Now then, as I have discarded published statistics, I am left to draw my conclusions from actual observation, and I think this is the true source, and the one which will yield the most satisfactory conclusions. Those persons who treat syphilitics year after year in private practice have opportunities for the observation of the course of the disease such as cannot be obtained in any institution. Such cases are peculiarly appropriate for our present consideration, as they consist really of such persons who apply to you for insurance upon their lives. I think that if we study, for instance, the course of the disease in from fifty to one hundred private patients, we can form better ideas of its fatality than we can by the examination of statistics. These patients are in varying circumstances and conditions as to constitution, habits, social status, trade surroundings, etc., and from the continuous study of their medical history the picture of syphilis in all its phases may be seen. This, indeed, is the only true way to determine the course of that disease, and such a line of study is the only one which will put the observer in the position to answer your questions accurately. A man's syphilitic history does not end with the healing of his chancre, and with the disappearance of the secondary lesions. It is necessary to observe the future of such a man, to consider how he is influenced by intercurrent diseases, or how they are modified by his syphilitic constitution, how his health is affected, and what is the condition of his offspring if he has such. It may be said truly, that if a man is once syphilitic his future life is a medical problem. Such cases are of much interest to me, and I endeavor always to trace the bearing of the disease upon their future career. I think that I need not say more to prove that the position which I have taken as regards the solution of this question is the true one, and the one most appropriate for my present purposes. Fortunately, particularly for Americans and the majority of Europeans, the syphilis of to-day is comparatively a mild disease. It is unnecessary to go into the study of the probable causes of this mildness in the course of syphilis, but certainly the fact is well established, and it may also, I think, be added, that it becomes markedly milder as years go on, owing no doubt to our more intelligent methods of cure, and perhaps to the advances of civilization. Thus we are ceasing to see such frequent instances of vast ulcerations as were seen say fifty years ago. This fact is also noticed in France, and is well shown by the reply of a physician to another, who wrote to him asking how often he found tertiary lesions.* The reply was, that the treatment to which he submitted his patients was such as did not allow tertiary accidents to follow. Indeed, I think the extreme dread which the community once entertained regarding syphilis is growing markedly less, owing to the fact that so many cases occur in which the disease runs a favorable course. Then again, I think that the great progress which has of late been made both in therapeutics, pathology and diagnosis of the disease are being very widely appreciated by the profession, much more so than formerly, and that they treat the disease more in accordance with science than in past years. Thus, then, we are not called upon to consider the influence of a terrible and fatal scourge, but, on the contrary, of a disease which is in the vast majority of cases amenable to proper treatment, and which may be so arrested in the individual that the health of future generations will not be impaired by it. Indeed, in the treatment of this disease, which is so widespread in its occurrence, such progress has of late been made that medical men may with pride claim that, if this portion of their study is not an exact science, they have at least reduced its art almost to a state of certainty. We are ceasing to read such diatribes as our forefathers read upon disastrous effects of mercury, and anti-mercurialists are greatly outnumbered by those who now know what benefit that mineral will produce, while they know how to avoid its toxic effects. Indeed, I think that, if reliable statistics could be obtained, it would be shown that the late lesions of syphilis are not by far as often of occurrence as they formerly were, and that there is a decidedly smaller number of cases of infantile syphilis. Of this department of medicine we may certainly be reasonably proud, certainly in no other has more real and substantial progress been made. In this connection it is well to remember that besides our more enlightened skill we now have as aids to us in treatment that very valuable drug, the iodide of potassium. It might be thought that the luxuries and indulgences of a rapidly increasing civilization might have a harmful influence upon the course of syphilis; but I think that this objection is not real, since, with our heightened civilization, we have a corresponding increase and knowledge and attention to hygiene. All these conditions, then, of national prosperity and personal enlightenment, constituting as they do our civilization, have an indirect, but, I think, potent influence upon the course of syphilis. Certainly it may be reasonably hoped that the severity of syphilis will gradually become even less than it is now. These considerations, you see, are pertinent to my subject, and are necessary to the proper unfolding of my views.

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* Recherches Statistiques sur l'étiologie de la syphilis tertiaire. By L. Jullien, page 7, 1874.

Having now established the general character of syphilis as a disease affecting the nation, let us consider what it is essentially. Let us study in what way it affects the economy, and in what manner it may lead to death in persons in general. After that we shall be prepared to apply the facts thus obtained to the various classes of men which constitute society, and from which individuals come with whom you may enter into relations in which the condition of their health is the cardinal point.

Without considering the contagious character of syphilis, it may be in general stated to be a constitutional disease in which there are tendencies to local hyperæmiæ, which are generally most active and almost confined in their occurrence to its early stages. Besides this general morbid tendency it produces cell changes, and gives rise to new formations in various organs and tissues. Thus, then, in its early stages particularly it may induce local congestions which may even compromise life, this event depending upon the severity of the process, as well as upon the particular part involved. Thus, while in the pharynx an hyperæmia may be only an annoyance, in the brain it might be the cause of death. The tendency of the disease to thus, as it were, put out of balance the controlling action of the blood-vessels, is quite well limited to its early stages, and gradually becomes less marked as the disease grows old. But the greatest danger of syphilis in destroying life is in its power of producing new growths, and this tendency, unfortunately, is of quite long duration, and it manifests various phases of severity. Fortunately for the human race, the integument which, as is well known, may be largely diseased without endangering life is the tissue which is most frequently involved by syphilitic neoplasms. Thus it is that so few die because of it. Yet it must be stated, however, that all organs and tissues may be affected, particularly those in which there is much connective tissue and which are abundantly supplied with blood-vessels and lymphatics. No organ possesses an immunity from the development of syphilitic new growths, or, as we call them, gummy masses, and when these latter affect the integrity of organs essential to life, it is compromised more or less. This general sketch, however, does not fully explain the essential nature of syphilis. There is also an altered condition of the blood, in which chemistry has demonstrated certain changes in its composition, and the microscope has revealed that certain peculiar little bodies are contained in it. We are unable to go further than this, and although we know from the observation of facts that it possesses contagious properties, we cannot determine in what this quality resides or of what it consists. This is one of those so intimately associated with life that we are unable to fathom it. Syphilis, then, is to be most feared in consequence of its power of producing local congestions and infiltrations of morbid tissues into organs essential to the maintenance of life. The condition of the blood which I have indicated also becomes, in some rare instances, a cause of general mal-nutrition which may eventuate in death. The state of the system thus induced we call syphilitic cachexia, and in some instances it is a formidable one. I shall revert to its consideration further on. Now, then, I shall endeavor to show how the various organs may be so affected by syphilis that death may be the result. In this I wish to be understood as saying that death may be caused, not of necessity is caused. Naturally we begin with the brain; very slight lesions of it often induce death.

SYPHILITIC LESIONS AND AFFECTIONS OF THE BRAIN WHICH MAY CAUSE DEATH.

Inflammation of the *pia mater* and arachnoid, consisting in hyperæmia and thickening in various degrees, and involving more or less surface.

Inflammation of the *dura mater*, with or without gummy deposit.

Internal cranial periostitis, either simple or gummous.

Gummous tumors in the cerebral hemispheres.

Acute inflammation of the arteries and capillaries.

Chronic inflammation of the same.

Thrombosis by fibrous coagula.

The spinal cord may also be similarly affected, so that I need not enter into detail, except to mention that syphilitic disease of the vertebræ may involve the cord and cause death.

The upper parts of the air-passages may also be affected by syphilis, and death has been known to follow obliteration of a bronchus by syphilitic inflammation and new growth.

Though our knowledge of the effects of syphilis upon the lungs is not as precise as we should wish it to be, yet do we know that these organs, so vital to existence, are, we may say, somewhat frequently attacked by syphilis. I shall, further on, devote considerable time to the relation of syphilis to pulmonary troubles, as these are of vast importance in medicine.

We are warranted in naming the following lesions as being produced or induced by syphilis:

Interstitial proliferation of connective tissue, with concomitant processes and subsequent results.

Gummous infiltration, more or less local or diffused.

Degeneration of arteries, either acute or chronic, giving rise to hæmoptysis.

The kidneys are said to be sometimes affected by syphilis, though of course it is difficult to trace the connection between the lesion and the disease. The lesions are not well understood. The structure of these organs is such as would seem to render them especially liable to the specific action of syphilis. Upon this subject Rayer, in his classical work, "*Traité des Maladies des Reins*, Paris, 1840,) says: "It is not easy to well appreciate the influence which constitutional syphilis may exercise upon the development of albuminous nephritis, for it is very rare to see this disease in syphilitic persons who have not been subject to other causes, of which the influence in producing affections of the kidneys could not be contested. However, I have seen cases in which the influence of the constitutional affection has appeared to me so striking that I have not hesitated to attribute at least, in a great part, the development of the affection to the syphilitic cachexia." Coming from a man who was well versed in questions of syphilography, this statement is very important. We may have, then, as induced by syphilis in the kidneys:

Hyperæmia, which may lead to structural change.

Interstitial nephritis.

Gummous infiltration.

Degeneration of vessels and of capillaries.

The liver may be so seriously affected by syphilis that its function is destroyed. It also is liable to the same forms of lesions as are the kidneys. A case is reported in which death was caused by occlusion of the portal vein by gummy deposit or tumor. So little is known of the pathology of the spleen that I cannot advance anything regarding its disease and the effects on health. It is to be presumed, however, from analogy, that even extensive degeneration of it would not cause death.

In some rare cases syphilis affects the œsophagus to such an extent that a fatal issue results. Cases of the occlusion of the calibre of this tube causing death are on record. Follin (Traité de Pathologie externe, Paris, 1872) reports a case which was due to syphilis, cured without local treatment by internal medications; while West (Dublin Quarterly Journal, 1860) records a fatal case. These facts go to show that this affection must be regarded as one of the probably fatal accidents of syphilis.

I am unable to consider the action of syphilis upon the small intestines, as they are so seldom if ever attacked, and the diagnosis of such an affection would be attended with much uncertainty. The rectum, however, may be involved by syphilis, and a condition may result therefrom which may finally lead to death.

(To be continued.)

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The influence of age upon suicide has been lately examined by Dr. O'Dea, and it appears that the *maximum* of suicides of both sexes occurs between the ages of 25 and 55. Previously to the 25th year there is a sudden increase from two suicides between the ages of five and ten, to 136 between 20 and 25. After 55 the tendency to suicide declines, but more gradually than it rose, except at 65, where the number increases from 81 to 83—a rise so slight, however, as to be little worth considering.—*Insurance Times*.

ON THE MORTALITY AMONG RHEUMATIC RISKS.*

By A. HUNTINGTON, M.D.,

OF NEW YORK.

Gentlemen—In the last annual report of the Medical Director allusion was made to the subject of rheumatism, and some few general observations regarding it were made at that time, with promise of a fuller and more complete inquiry at some future period.

During the past year the subject has been taken up, and as careful an investigation made as it was possible to make with the dates and information at our command.

The result of this investigation is given below, and while it does not establish grounds upon which the Medical Examiner feels he can stand and act *positively* in regard to the acceptance or rejection of rheumatic risks, yet it confirms, as far as it goes, the impressions of medical men in relation to the effect of rheumatism, and will serve to make the Medical Examiners of this Company at least extremely careful in the selection of risks which have any history of rheumatism.

It is to be regretted that the applications heretofore used (and in this respect all companies were alike) were such that the particulars necessary to a *full* understanding of rheumatic attacks in applicants could be obtained in but comparatively few cases, and it is owing to this that we are unable to show, as we wished to do, the effect of rheumatism at the different periods of life, because the dates at which the individuals suffered the attacks are rarely mentioned, nor is even the character of the disease specified in the great majority of instances; still, with all this against us, we have been enabled to present some facts which are, to say the least, suggestive. We are glad to say that in the new application recently adopted by the Chamber of Life Insurance these defects of the old forms are remedied, and hereafter we shall be able to command far greater accuracy of detail.

Our investigations have been made on 844 cases, who report in their applications that they have suffered from rheumatism at some time in their past lives. This includes all grades of rheumatism, from "slight muscular" up to "acute inflammatory." Many of these cases have, of course, lapsed; so that, as a whole, we can follow the 844 but a little way from the threshold; and owing to this fact our observation has extended to but 7½ years' average to each individual. Therefore, we can only say of them, as a whole, that they came from all classes of the people—were engaged in the various pursuits of life—and were of all ages upon which policies are usually written.

Of these 844 we have the height and weight in 674 instances, but in the remaining 170 these records are wanting. It is scarcely probable, however, that these 170 would disturb the averages to any great extent.

We find that the average weight does not vary *materially* from the standard, yet is, in the main, *somewhat above* it.

Having stated the above, we find little else to attract our attention till we come to the deaths among these rheumatic cases; and these we find were 114 in number, *i.e.*, there were 114 of which we are cognizant. Of those who died having allowed their policies to lapse, or of the cause or manner of their deaths, of course we cannot speak; but it is just to presume that a fair proportion of these died from the causes which we shall hereafter show to have been so fruitful among the 114 of which we are speaking. These 114 deaths were from all causes.

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* Annual report to the directors of a life insurance company in this city.

Table of height and weight in the 674 cases:

Height.......	5 ft.	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6 ft.	6.1	6.2	6.3
Number......	10	2	4	14	24	33	65	103	141	84	92	59	30	9	3	1
Av. Weight...	128½	141⅓	131	126	142	138	142½	148	152	163	164	164	173	186	208	235
Am. Standard.	115	120	125	130	135	140	143	145	148	155	160	165	170	175	185	195

The heights and weights of these are given in the following table, and do not differ materially from the table of the 674 cases above. In 15 of these cases the weights and measurements are missing: we have therefore made our table upon the 99 remaining.

Height........	5 ft.	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6 ft.	6.1
Number.......	2	....	....	2	4	6	9	18	14	18	15	8	2	1
Av. Weight....	115	....	....	132	135	142	145	157	155	165	162	161	159	230
Am. Standard..	115	120	125	130	135	140	143	145	148	155	160	165	170	175

The average age, at death, of the 114 was 46 years and 9 months, distributed among the ages as follows:

Ages.	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	
No.	20	26	40	22	6	114

As we have said, these 114 deaths were from all causes, but when we examine more critically into these causes of death among individuals who have had rheumatism, and compare them with the same causes among others who have not had rheumatism, we find that death arising from diseases of certain organs occurs far more frequently among those *having* than among those *not having* rheumatism.

This is in accordance with the generally received opinions among medical men, viz., that rheumatism, and especially certain varieties of it, is quite likely to be followed by disease of certain organs, more particularly the heart, which, in many instances, eventuates in brain or dropsical difficulty.

We shall use, therefore, only three of the causes of death in making our comparison, for the reason that, while many and various diseases come in for notice, these three, viz., heart disease, brain disease and dropsy, figure so conspicuously as to make it evident that they are the ones upon which the comparison should be instituted.

This comparison is based upon 1,000 deaths, 114 of which furnish a history of rheumatism; and 886 are without any such history, so far as we can learn.

Among the 144 deaths, of persons who during life had suffered from rheumatism; 21, or 18.42 per cent., were from heart disease; 22, or 19.29 per cent., were from brain disease; and 4, or 3.5 per cent., were from dropsy. Among the deaths of the 886 who had not had rheumatism there were 35, or nearly 4 per cent., from heart disease; 101, or 11.39 per cent., from brain disease; and 16, or 1.8 per cent., from dropsy. Placing these figures side by side in the form of a table, we have the following:

	Heart Disease. Per cent.		Brain Disease. Per cent.		Dropsy. Per cent.	
With rheumatism (114 cases)...............	21	18.42	22	19.29	4	3.50
Without rheumatism (886 cases)..........	35	3.95	101	11.39	16	1.80
Total........... .	56		123		20	

Of the above it is but reasonable to suppose that some of the deaths attributed to brain disease and dropsy should, by *right*, have been included among diseases of heart: and it is by no means improbable that some of those dying of heart disease or brain trouble, who come under the head of *non*-rheumatics, *ought* properly to have been in the other group.

Thus we see that those individuals who are afflicted with rheumatism contribute to deaths from heart disease about 4½, where those without it contribute but 1; brain disease, 1⅔ to 1; dropsy, 1⅓ to 1.

"Rheumatism" is a thing so common that, were we arbitrarily to exclude all who say they have had rheumatism, we should almost be unable to do business. Nor is this necessary, for it is only certain kinds of rheumatism that we believe so apt to be followed by heart trouble; and we now hope, through the form of the new application, to get such particulars of information as will enable us to decide intelligently when to admit and when to exclude rheumatic applicants.

The plan pursued in this investigation was as follows:

The risks were divided into four different classes, according to the several grades of rheumatism, as nearly as could be determined by the statements of the applicants, and the tabulated statement below, prepared by the Actuary of the Company, will show all the points of interest, and is self-explanatory.

	Lives.	Exposure.	Expected Mortality.	Actual Mortal.	Ratio.	Duration of Pols.
Rheumatism..	294	2160½	30.57	54	1.766	7.35
Do. slight, occasional.....	306	2143¾	29.35	31	1.056	7.00
Do. acute, fever, inflammatory.. . .	164	681¼	8.98	11	1.225	6.55
Do. in limbs..	140	1073¼	14.68	18	1.266	7.66
	844	6058¾	83.58	114	1.364	7.18

I will only add that, in consequence of the vague manner in which many applicants speak of their rheumatism, and the general temptation to conceal the severer forms, or make them appear as insignificant as possible, it is very reasonable to believe that the above ratios do not express the actual facts, but that many of the cases which were designated as "rheumatism" simply, or "rheumatism of limbs," or "slight rheumatism," *ought* to have been classed among the "acute inflammatory" cases.

We give it, however, as it is, believing that we have at least an approximation to the facts, and that hereafter, when we shall be able to get the details in rheumatic cases more fully, we can make a much more exhaustive statement.

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ACCORDING to the investigations of Mr. Ansell, of England, the mortality, from age 15 to age 35, among the children of physicians is less than among the children of the same ages of either the clergy or the legal profession.

AUTOPSY OF THE TRING CENTENARIAN, WHO HAD ATTAINED THE AGE OF ONE HUNDRED AND ELEVEN YEARS.*

By Sir G. DUNCAN GIBB, M.D., LL.D.,
PHYSICIAN TO THE WESTMINSTER HOSPITAL.

An account of the autopsy of the old dame, Mrs. Elizabeth Leatherlund, known as the Tring or Hertfordshire centenarian, just deceased, who was within three months of attaining the great age of one hundred and twelve years, will be most fittingly recorded in the pages of *The Lancet*. Of the correctness of her age, as I have already had occasion to state in a communication brought before the British Association at Belfast, in August of last year, there is no doubt, and very shortly a paper of mine, embodying all the proofs of this, will be brought before one of our scientific institutions. But it may be stated here, that she mentioned she was born at Chinnor, in Oxfordshire; she gave the Christian name of her father correctly, as well as her own; her maiden name she described as Herne, although spelt Horam in the Parish Register of baptisms at Chinnor for 1763, in which occurs this:—"Elizabeth, daughter of Thomas Horam, Travailer, April 24." No subsequent entry occurs in this register for thirty-seven years, giving her own or father's name, which disposes of an objection to her age that was brought forward in *The Times* some months back. Then she stated she was twenty-eight years old, or probably twenty-nine, when her first child was born. When I saw her in October, 1873, I felt that the crucial point would be the discovery of the date at which her eldest son and child, Samuel Leatherlund, with his wife and children, and other persons to the number of thirty-five, were drowned by the upsetting of a large wagon laden with hop-pickers, on crossing a wooden bridge over the river Medway, at Hadlow, in Kent, many years back. She could not give me the year, but on writing to Dr. Miles Coverdale Hooker, at Hadlow, he at once kindly furnished me with the date of the catastrophe, as October 20th, 1853, and sent me a photograph of the monument, with the names of Samuel Leatherlund, his wife, children, and kinsfolk, with their ages, who were buried there. Samuel's age was down as fifty-nine, and, curiously enough, all this information must have been correctly furnished by one daughter who escaped, as I learnt by referring to the newspapers of the time, which gave a very full account of the affair, together with the various inquests on the bodies. If the son was fifty-nine, or probably near upon sixty when he lost his life in 1853, he would have been eighty-two now, and deducting that from one hundred and eleven or one hundred and twelve, the age she would have shortly reached, it would have made twenty-nine when she was confined with him, which tallies with her statement. This, medically, is a matter so clear that it requires no further comment. By her husband, Joseph Leatherlund, a private in the Bucks militia, who died at Carrick-on-Shannon about 1816, she had three sons and two daughters. The eldest was Samuel, and the youngest and only surviving is Saborah, who says she is near upon seventy (although she looks younger), and the mother of nine children, the eldest of whom is thirty-seven and the youngest sixteen.

On my visit to the old dame, in October, 1873, a most careful physical examination was made, including the use of the laryngoscope, which at first very much frightened her. Generally speaking there was an absence of senile changes in any part of the body, and I compared her condition at the time in some respects to that of a girl of sixteen. She made the tenth living centenarian I had examined, and unquestionably she looked ten years older than any of the others. My friend Mr. R. N. Lipscomb, of Tring, who had occasionally seen her, kindly promised to let me know when anything happened to her.

On January 19th a letter from him, late in the day, informed me of her death the preceding night. Accordingly, I proceeded early next morning to Tring, to meet him, for the purpose of examining her. He was unfortunately called away to a distance, but he left instructions with his assistant to aid me in his absence, and we proceeded together to the Red Lion Inn, Frogmore street, where I made the autopsy myself, the assistant recording the appearances as they were described to him.

Autopsy at 12.30, *about thirty-six hours after death.*—Height during life was four feet nine or ten inches; the body, therefore, was small and proportionate to her height. The rigor mortis was slight, and no odor was exhaled from the body. The integuments generally were of a yellow color with a shade of brown, but not darker than they appeared during life. They were a little loose over certain parts of the body, but the attenuation of the muscles, especially about the neck, did not seem to be so great as when she was seen by me in October, 1873. The muscular development generally was fairly good, and no decided emaciation to speak of existed. The mammæ were firm and well developed, though small, with no dark areolæ around the nipples. Over the abdomen were the usual marks seen in persons who have borne children. In sewing up the body afterwards, the skin was so tough that the needle would scarcely penetrate it. On reflecting the integuments over the chest and abdomen, a little adipose tissue was found over the pectoral muscles, and over the abdominal muscles it varied in thickness from an eighth to nearly a quarter of an inch. The cartilages of the ribs at their junction with the bone were cut through with the greatest ease and facility, the knife meeting with no resistance from any osseous changes. The cut surface presented a narrow rim of true white cartilage, whilst the other part possessed a brownish tinge, the result of some change allied to fatty degeneracy, for a slight roughness was manifest to the finger, although the middle structure was quite soft; but before division of the costal cartilages, the thorax could be compressed with ease, through their elasticity, as I had seen during life.

The lungs were healthy, crepitant throughout, and had the usual appearance. Some slight congestion of the posterior part of the left was present, which, to some extent, may have been hypostatic, yet, associated with what was described as a trifling cold, it was the immediate cause of death. At the apex of each lung was a trifling adhesion, readily broken down, the connecting membrane having the appearance of ordinary areolar tissue. Both lungs at the margins of their lower lobes had an emphysematous fringe. The heart was perhaps a little large in proportion to the size of the body; it weighed, with the arch of the aorta, thirteen ounces exactly. In structure it was soft, a little flabby, and had a slight covering of fat. The coronary arteries were distinctly observed, but had not undergone any change. The right side of the organ was filled with dark clots of blood, whilst the left was empty. The muscular structure, cavities and valves appeared to be normal. The arch of the aorta generally was enlarged, dilated and somewhat attenuated;

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* From The Lancet of Jan. 30, 1875.

at its commencement the circumference was four inches and one-sixteenth, whilst at its termination it was three inches and one-fourth. An atheromatous patch, the size of a silver threepence, was present on the lower surface of the transverse portion of the arch, whilst at the commencement of the anterior and left part of the ascending portion a ridge of atheroma existed, which did not involve the semilunar valves.

On opening the abdomen scarcely any trace of the omentum was observed. The stomach and alimentary canal were perfectly healthy, and not distended with flatus. The liver was of fair average size for the body, of firm healthy structure, possessing a light claret-brown color, and free from any white spot or patches. The gall-bladder was large in proportion to the liver, and filled but not gorged with bile; it contained no biliary calculus. The spleen was of the usual purple color, comparatively small, slightly curved in shape, but healthy and firm. Both kidneys appeared to be healthy, the cortical and medullary portions fairly distinct, but in general structure soft and flabby. The ureters were normal, and so was the bladder, which was nearly full of urine. The uterus was very small, the Fallopian tubes and ovaries equally so, all quite healthy. The thoracic and abdominal aorta and other blood-vessels were soft, and free from any abnormal changes. The tongue, larynx and trachea were removed for examination. Some of the papillæ on the dorsum of the tongue were much enlarged. The larynx was small and compact; the epiglottis, which had a slight notch on its superior margin, possessed the natural color, shape and appearance of early life. The vocal cords, short in length, had the merest tinge of yellow, but were otherwise normal. The aryteno-epiglottidean folds, the ventricles and all other parts of the larynx were as perfect in their formation as in a young person. All the cartilages of the larynx were flexible, with an absence of any calcareous changes, unless in the central solid parts of the wings of the thyroid. The rings of the trachea were white and glistening, perfectly flexible and soft, and could be compressed in any direction. The os hyoides was thin, the great cornua slender, one of them fractured on removal, and the right lesser cornua elongated.

The heart, tongue, larynx and trachea were brought away, and have since been presented to the College of Surgeons for their museum.

I must not forget to mention that the cornea of both eyes was free from any arcus senilis or annulus, although her sight had not been very good of late years. Yet she had been able to knit twine bags almost to the very last. She was of pure gipsy descent, and her father's family of Herne or Horam was, it appears, well known in Herts, Bucks and Oxon, as belonging to wandering tribes of gipsies.

THE COMPARATIVE MORTALITY OF LARGE TOWNS.*

By BALTHAZAR FOSTER, M.D.

As the time at my disposal is short, I have drawn up in a tabular form the statistics on which my remarks are based. The table gives the rate of mortality from all causes, and certain special causes, for twenty years (1851 to 1870), in Birmingham and six other large towns, as compared with the rate of mortality in the country generally (England and Wales), and in twelve healthy rural districts. The registration districts, I should observe, do not correspond with the boroughs in the cases of the six provincial towns. In each instance the registration district is limited to the worst part of the town, and so the comparison is a fair one, except in the case of Bristol. The registration district of Bristol includes not more than one-third of the city, and that the most unhealthy part; the death-rate, consequently, appears much higher than that of the whole city. In the case of London, on the other hand, the area of the registration district is so wide that the death-rate is lowered by including the suburban districts with the central portions of the city in a common average. A glance at the second column of the table shows that the death-rate of the Birmingham district, from all causes, places our town higher in the health scale than Liverpool, Manchester, Leeds, and Sheffield (I omit Bristol for reasons above stated); while our death-rate is greater than that of London, and exceeds that of the whole country by about 4 per 1,000. The towns lower in the health scale exceed that of the whole country as follows for the twenty years:

Sheffield....................	6.5	per 1,000
Leeds	6.5	" "
Manchester........... nearly	10.	" "
Liverpool..................	13.7	" "

The reduction of this excess is the work before the sanitary authorities in these districts. Passing on now to the next column, which shows the fever death-rate, Birmingham stands exceedingly well, being, with London, for the twenty years' average, the healthiest of the six great towns, and for the last decade having a lower fever death-rate than the average of the whole country. Liverpool, which is by far the worst of the great towns in its fever death-rate, has a population which suffers from true typhus, a form of fever exceedingly rare in Birmingham. After this column, however, the superiority of Birmingham ceases, and we come to the two great blots in its sanitary records. The diarrhœa and cholera death-rate in the next column shows that the Birmingham diarrhœa death-rate is twice as bad as the average of the whole country, much worse than that of London and Bristol, about equal to that of Sheffield and Leeds, and is only exceeded by the death-rate in Manchester and Liverpool. If we take, however, the proportion of deaths from this class of disease, and the deaths from all other causes during the twenty years, as stated in column nine, Birmingham stands second in this black list, being only surpassed by Liverpool—the most unhealthy of our great towns.

Moreover, when we bear in mind that during these twenty years Liverpool has suffered from several cholera epidemics, while Birmingham has enjoyed a wonderful immunity from this terrible pest, we cannot, I am afraid, truly say that Birmingham is much healthier than even Liverpool in respect to the mortality from diarrhœa. It is true the town has improved a little during the last ten years, but not sufficiently to justify any complacent indifference to the deplorably high death-rate from this cause. The next column refers to diphtheria. Here again, the results are startling. Birmingham is the worst great town in England as regards diphtheria, and this unenviable character has been acquired during the last ten years, the death-rate from this disease having gone up from .07 to .34 per 1,000 in the ten years; or, to state it more plainly, nearly five times as many deaths have occurred from diphtheria during the latter decade as in the former. A difference in registration will not account for this, as such a cause would have operated equally in other towns, and, moreover, the throat disorders which are confounded with diphtheria are not (with the exception of scarlatinal sore-throat) commonly fatal, and would not therefore affect the death-rate.

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* From the Medical Press and Circular of Jan. 27, 1875.

As regards this disease, Birmingham stands not only as the worst of the great towns without exception, but has a mortality nearly double that of most of them. Taking a momentary glance at two other columns in the table, a total zymotic death-rate and the proportion of deaths from zymotic diseases to deaths from all causes, we see that Birmingham is a little better this decade than for that ending in 1860. Comparing Birmingham with other towns for the first ten years of my table (the figures for the other towns for 1861 to 1870 not yet having been published by the Registrar-General), Birmingham was the worst town of all, except Liverpool and Sheffield, as regards the proportion of zymotic deaths to deaths from all causes. I specially refer to this, because these diseases are what we call, and call properly, "preventable diseases"—diseases which depend for their propagation on neglect of sanitary laws—diseases which admit of being partially, some would even say, very largely, stamped out. The simple statement that the death-rate in Birmingham, from preventable disease has been for twenty years past about 7 per 1,000, or that more than one-fourth of the total deaths has been from this cause, hardly conveys the magnitude of the evil. Every year there are now some 2,000 deaths from this class of preventable disease, and during the twenty years considerably over 30,000 persons have died in Birmingham from a class of disorders largely reducible by strict sanitary measures. During the year which has just closed the death-rate of the borough has gone up to the very high rate for Birmingham of 29 per 1,000, after having stood for the three years 1871, 1872 and 1873 at an average of 24.3 per 1,000.

The increase has been caused by the prevalence of certain zymotic diseases, especially small-pox. From this cause alone, during this one year, 637 persons have died; a number greater than the total deaths which occurred from small-pox during the ten years, 1861 to 1870. The remainder of the table I will not enter on, but would brifly refer to those two great sanitary defects which I have pointed out, viz.: the diarrhœa and diphtheria death-rates. Both of these classes of disease are eminently preventable. Diphtheria, when it was first studied in France, was referred to the poisonous effluvia from decomposing sewage. This view has again, of late, been greatly strengthened, and there is a strong opinion in the medical profession that diphtheria is especially a disease which is very closely connected with defective drainage. It often prevails epidemically in rural districts, in localities where such conditions exist, and is rather a disease of the country than of the town. In Birmingham, however, it has apparently taken up permanent quarters, and must consequently have found some local conditions especially favorable to its development and propagation. To these I will refer a little later on. In diarrhœa we have a still older enemy, one that has always prevailed in the town. The medical officer of the Privy Council, in his report for 1858, specially investigated the causes of the prevalence of diarrhœa in Birmingham and other towns, and he summed up his report with these words: "The excess of mortality has, in all the places, been coincident with one or other of two definite local circumstances—the tainting of the atmosphere with the products of organic decomposition, especially of human excrement, and the habitual drinking of impure water." Sewage, polluted earth, tainted air, and impure water, are the great factors of diarrhœal disease; and there is reason to believe that diphtheria depends on somewhat similar unsanitary conditions. The question now naturally arises: Are there special conditions in Birmingham favorable to the development of these diseases, and if so, what are they? We have not far to go for an answer. In this town, in 1870, the end of the period covered by my figures, there were 70,000 houses connected with privies and middens in the town. These houses contained a population of 325,000. In the words of the report of the Sewage Committee:

"The middens cover an area of thirteen and a half acres, and practically all of them, containing fæcal matter and solid and liquid refuse, are open to the air. Some of them are situated beneath houses or workshops, and large numbers are built against the walls of houses, which are thus permeated with the filthy liquid soaking through the walls. The consequence is that the sewers are constantly fouled by the drainage from the middens, and that the surface wells generally become the receptacles of sewage matter, with which the earth surrounding the middens is absolutely saturated."

Registration District.	Death-rate from all Causes.	Fever ("typhus" of Registrar-General.)	Diarrhœa and Cholera.	Diphtheria.	Scarlatina.	Total Zymotic death-rate.	Proportion of deaths from each cause to deaths from all causes.	
							Zymotic per cent.	Diarrhœa per cent.
12 healthy rural districts	17.1	.6	.4	.18	.53	2.9	17.	2.3
	17.4	.59	.38	.22	.45	....	...	2.2
England and Wales	22.	.91	1.08	.1	.87	4.95	22.5	4.9
	22.4	.88	1.08	.18	.97	....	....	4.8
London	23.7	.85	1.5	.08	.93	6.1	25.7	6.3
	24.3	.89	1.29	.18	1.14	....	....	5.3
Bristol. (Parish)	26.6	.95	1.3	.07	.98	5.75	21.4	4.8
	26.9	.93	1.2	.18	1.27	....	....	4.4
Liverpool	33.3	1.35	2.9	.05	1.5	9.4	28.2	8.7
	33.6	3.1	2.9	.17	1.47	....	....	7.5
Manchester	31.5	1.25	2.4	.04	1.5	8.	25.5	7.6
	32.8	1.7	2.6	.16	1.56	....	....	7.9
Leeds	27.7	1.1	2.25	.05	.97	6.8	24.5	8.1
	29.8	1.4	2.37	.13	1.26	....	......	7.9
Sheffield	28.4	1.3	2.2	.2	1.24	7.9	27.8	7.7
	29.	1.4	2.1	.19	1.42	....	....	7.2
Birmingham (Parish)	26.5	1.	2.2	.07	1.06	7.15	27.	8.3
	26.6	.79	2.	.34	1.32	6.98	26.3	7.5

The foregoing is the table of mortality per 1,000 inhabitants, from all causes and certain special causes, in Birmingham and eight other districts, during twenty years; the first line of each bracket referring to the period from 1851 to 1860, and the second from 1861 to 1870.

By our own words are we judged. The water of these surface wells, polluted with sewage, as our medical officer of health has frequently shown, is at present used by at least one-third of our population. Some 140,000 people in this town drink this death-giving fluid, and especially the children under five years of age, on whom the mortality from diarrhœa and diphtheria falls most heavily. The remedies for this state of things are obvious; they are two: (1) The abolition of the midden system, and the substitution of a system of weekly removal of refuse of all kinds from every house. This is the system which has been for years in operation in some of our healthiest towns. I am glad to say the corporation are vigorously endeavoring to carry it out here. The next remedy (2) is the abolition of all surface wells, and the substitution of a constant supply of the purest water we can get. If, by any means, a stream of pure water is poured into our courts and yards, in place of the tainted well-water which is now used, our health conditions in Birmingham will be greatly improved, and our mortality from preventable diseases largely diminished. This work, which you, sir, have proposed during your tenure of office, is our most urgent sanitary reform, and will, when accomplished, give a special honor to your mayoralty.

Miscellaneous.

Influence of Factory Work upon the Health.—Dr. Hirt, district physician, delivered a lecture before the Breslau *Gewerbeverein* on the question: "Of what points regarding the employment of women and children in factories should legislation especially take cognizance?" It was stated that the German kingdom was the only civilized nation without factory laws, but the opinion was expressed that the time was not far distant when such legislation would also exist in Germany. Two events were mentioned which indicate the importance which the public attaches to this question. At the forty-seventh congress of the German naturalists and physicians in the section for Public Hygiene, this topic, next to the cholera, was regarded as of greater moment than any other subject discussed. Moreover, the Minister of Commerce has recently united with the Minister of Public Instruction in sending to the governments and physicians a programme in which they are called upon to institute certain very radical reforms throughout the German empire, concerning the condition of the female and youthful operatives in factories. This implies that factory laws are already under consideration. The enactment of such laws would naturally involve the imposing of further burdens upon the employers; but experience has taught that the protection of women and children in factories, by legislative enactments, is an absolute necessity. But if by reason of her feebler constitution the healthy woman needs greater protection than the man, then this must be still more true of sick women, women in the state of pregnancy, or those in child-birth, not merely for their own sakes, but also on account of their offspring. By statistics the speaker showed how dangerous and prejudicial to the pregnant woman is the employment in factories where the atmosphere is filled with particles of lead. That children, with their feeble undeveloped constitutions, stand in need of protection from the state, will hardly be questioned by any one. The first question which arises is, at what age ought children to be allowed to work in factories? In England, at present, this age is fixed at the tenth year, and according to our regulations children under twelve are not permitted to become regularly employed, and from twelve to fourteen years of age they can be employed in the factories only six hours, while from fourteen to sixteen they may work ten hours. But this law is very commonly evaded, inasmuch as the regulations which provide that the occupation shall not be continuous and regular, but shall be interrupted by proper intervals, are rendered nugatory by means of various artifices. But even limiting the age to twelve years is not sufficient, and in Switzerland it is made to extend to fourteen years of age. It appears that this limit is necessary, and it will be possible gradually to introduce it here. But furthermore the employment of children in certain of the trades is to be prohibited under all circumstances, and without exception. In cases where children are employed in factories in which arsenic, lead and the like are used, or where the child is exposed to the danger of inhaling dust, it becomes the sacred duty of the legislator to protect the health of the future generation. With regard to women the prospective legislation should enact something as follows: Persons in the second half of gestation shall not be employed in any of the following (or similar) trades; in the manufacture of colored paper containing poisonous compounds, of metachromotypes, of Schweinfurt green, of artificial flowers, or of phosphorous matches; in lace-making, in working sewing-machines, and finally, in general, in all factories and workshops where poisonous gases (carbonic acid, carbonic oxide, sulphuretted hydrogen, sulphuret of carbon), are likely to be developed. No woman recently confined shall be regularly employed in any way in any factory before the ninth day from her confinement. If then she desires to return to her work she must bring a certificate regarding her condition from a competent physician. No woman shall be permitted to work in any of the above detailed employments from the tenth to the forty-second day after confinement.—*Deutsche Versicherungs-Zeitung.*

Extraordinary Longevity.—The Philadelphia *Evening Bulletin*, of October 1, 1874, contains an obituary notice of George Labar, who died September, in Monroe county, Pennsylvania. According to the *Bulletin*, he was born in the autumn of 1763, in Mount Bethel, now Portland, Northumberland county, Pennsylvania, where his baptismal register is still preserved. He was of French descent, his grandfather having been a fugitive from religious persecution. His father lived to the age of one hundred and five years. In 1870 he had a brother living who was ninety-eight years of age, one sister aged eighty-six, and another aged ninety-two years. He had lived an active out-door life, and had known very little sickness. He used tobacco very freely all his life, both smoking and chewing, but was very moderate in the use of alcoholic liquors. As there seems no reason to doubt the accuracy of the statements given, this is one of the most extraordinary cases of longevity on record.—*N. Y. Medical Journal.*

Original Communications.

ON THE DANGERS OF INTRA-RECTAL EXAMINATION.

WITH A CASE.

By ROBERT F. WEIR, M.D.,

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Among the more prominent advances made in surgery during the past few years must be ranked the exploration of the pelvis and abdomen by the introduction of the hand into the rectum. Although this had been practised, or had been suggested, both in this country and abroad, prior to 1872, yet in that year G. Simon, of Heidelberg, set forth in an article which appeared in *Langenbeck's Archiv f. klinische Chirurgie*,* the advantages to be derived by this method of examination. It was immediately recognized as an improvement upon our existing modes of diagnosis, and has since been used by many surgeons of eminence, and thus far, with two † exceptions, without accident. Yet in the original paper of Simon, and more especially in a later article, published by him in the *Deutsche Klinik f. Chirurgie* for November, 1872, he points out clearly the possibility of danger, and at what point it is likely to be encountered. He states, in brief, that he has measured carefully many recta, and finds that the greatest expanding capacity of the intestine is at about 6 or 7 centimetres ‡ above the anus, where it can be stretched from 25 to 30 centimetres. From this point to the superior extremity of the middle third it gradually diminishes to 20–25 cm., and from here it rapidly lessens in circumference until, in the middle of the upper third of the rectum, it does not measure more than 16–18 cm., the narrowest portion being at the beginning of the sigmoid flexure. He also learned that he could rupture the intestine in the cadaver, in this upper part, when forcing his hand, measuring 20 cm., into this portion.

This point, at which the dangerous narrowing begins, is distant from the anus some 12 or 14 cm., and corresponds to the third sacral vertebra, and also to the reflections of the peritoneum, which run forward from the rectum, in the male, to the bladder, and in the female, to the uterus, constituting the lateral boundaries of Douglas's cul-de-sac, and called by Simon the *ligamentum semicircularis Douglasii*.

When the hand, in its greatest circumference, rests at this point, the tips of the fingers can be introduced into the sigmoid flexure, and with the mobility obtained from the extra calibre of the intestine, and from the mesorectum and mesocolon of the sigmoid flexure, palpation may be made in favorable cases as high as "several centimetres above the umbilicus." The limit to the upward motion is due mostly to the check action of the *ligamentum Douglasii*. This, however, is only put on the stretch after the cul-de-sac of Douglas has been everted by the crowding up of the rectum; should the hand be forced still further, not only injury to the intestine and laceration of these peritoneal folds would take place, but probably, as in the experiments made on the dead subject, rupture of the vesical, middle hemorrhoidal, and uterine arteries.

These explorations have not only been repeated several times in the same patient by Simon himself, but he has also allowed other physicians, with hands of a circumference of 25 to 26 cm., to perform the same manipulations, without any evil results, and, indeed, with but little or no impairment of the tonicity of the sphincter ani muscle, as the next day injections of water could be retained. In his paper he says, to quote his own words: "By a careful observance of the above-given directions *(i.e.,* by proceeding slowly, using a rotatory motion, and avoiding force) repeated experience has taught me, by laying the hand together as a cone, that a bloodless examination may be made with a hand measuring 25 cm. in circumference. In exceptional cases only is it necessary to incise the posterior margin of the sphincter ani muscle."

These views as to the limitation of the extent to which we should endeavor to introduce the hand, have not, however, been received as final, for Nussbaum and Popp * have both been able, by intra-rectal explorations, to touch the ensiform cartilage. Unfortunately for our guidance, the size of the hand is not given.

In this city Dr. C. A. Leale read a paper, in November, 1873, before the Academy of Medicine, on Intra-rector-Abdominal Exploration, and gave a case where, for the purpose of irritating the solar plexus, in poisoning by chloroform, he had safely introduced his hand (twenty centimetres in circumference) [to the depth of 16 inches, passing, without doubt, into the descending colon, and had thus recognized by the touch the inferior border of the liver, and projected his fingers forward, so that they could be felt four inches (10 cm.) above the umbilicus. The forearm measured at the point of extreme insertion 25 cm.

In a case of right lumbar colotomy, presented by Dr. H. B. Sands to the New York Pathological Society (Medical Record, June 1, '74), the results of a manual exploration of the rectum are given, as obtained by a post-mortem examination. It is there stated that the hand was passed to a distance of twelve inches, and that the forearm was too large to go further, as though the limit of the exploration was the possible dilatation of the anus. The similarity of this case to the one to be described is more striking, by the existence of a laceration of the muscular, but not peritoneal, coat of the rectum, about eight inches from the anus. Dr. Sands's hand, he has informed me, measures less than 19 cm.†

Similar explorations have been made by various surgeons in this city for the diagnosis of a supposed renal tumor, for abdominal aneurism, for intestinal obstruction, etc. In one of these cases there existed a reducible inguinal hernia, which could be distinctly recognized through the wall of the rectum, demonstrating the reasonableness of Nussbaum's suggestion of thus pulling the intestine out of incarcerated hernia, and particularly from those situated in the umbilical region. The hands of the explorers alluded to above did not exceed 19 cm. in circumference. I have thus far purposely dwelt somewhat at length upon the risk that is encountered in these explorations, not only on account of its connection with the following case, but also from being struck by the omission of this point in many of the journals in which the procedure has either been described or alluded to.*

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* Vol. xv. Hft. 1, Ueber die künstlische Erweiterung des Anus und Rectum.

† Dr. Sands's case and the present one.

‡ Two and a half cm. = one inch.

* Deutsche Klinik f. Chirurg., March, 1872.

† Since the above was written an opportunity has been afforded of examining a rectum four days after manual exploration had been resorted to. The case occurred at St. Luke's Hospital, in the service of Dr. T. T. Sabine, whose hand measures less than 19 cm. in circumference. The exploration was instituted for the purpose of establishing the nature of a renal tumor. For this the hand was introduced to a depth of eleven inches, measured from the tips of the fingers. The patient died four days afterwards, and the autopsy showed several ecchymoses on the anterior wall of the upper third of the rectum, and which had resulted from slight lacerations of the muscular coat. The peritoneal and mucous coats were, however, intact.

CASE.—*Intestinal Obstruction—Stricture of Colon—Intra-rectal Exploration—Right Lumbar Colotomy—Death—Incomplete Rupture of Rectum.*

Elizabeth P., aet. 50, multipara, short and stout in figure, and in apparent good health, summoned me, January 4th of the present year, for the relief of a severe attack of colic, with moderate vomiting and occasional hiccough, which had lasted about forty-eight hours, and had been preceded a week previously by a similar though slighter attack. Pulse 96; temp. 100°. The abdomen was not distended, nor were any hernial protrusions to be felt. Across its upper part was felt the transverse colon, much distended, especially in the right hypochondrium, painless on pressure, and pitting. This could be traced across to the left side, and there was lost to palpation and percussion. Questioning revealed that she had been troubled by a series of colicky paroxysms of varying severity since last spring. They were generally accompanied by moderate constipation, and were without any intercurrent diarrhœa. Her fæcal discharges had been for some time past not only insufficient but of a light slate color. She stated that she usually obtained relief from these attacks by domestic purgatives, and in the intervals felt perfectly well. Attributing her attacks to maleria from the want of bilious matter in her stools, she had for this taken large quantities of quinine. The present seizure was the worst she had ever had. She was suffering great pain at the time, but it was not referred to any particular point in the abdomen. A rectal examination detected nothing abnormal. She was directed to take ¼ gr. acet. morph. every hour until the pain was relieved, and to have a large injection of warm water and soap suds to be repeated *pro re nata*.

In the course of a few days, Jan. 10th, but not, however, before the vomiting had become stercoraceous, she obtained relief, mainly by the aid of large enemata, and the mass in the colon softened coincidently with the discharge of the pasty, fluid, clay-colored movements. With alternations of relief and occasional exacerbations of obstructive symptoms, she favorably progressed under the above course of treatment, viz., anodynes whenever the temperature became elevated, large, simple and medicated injections, and occasional gentle purgatives, until February 10; having for several days previously felt quite well and strong, and having daily spontaneous movements, of the same character however. Up to this time, from the persistence of the distention of the transverse colon, lost however in the left hypochondrium, from the amount of fluid frequently injected (three to four pints), and from the depth to which the soft rectal tube was introduced (18–20 inches) by the very intelligent friend who nursed her, her difficulty had been recognized as a case of stricture situated probably in the upper part of the descending colon.

On Wednesday, February 10, a recurrence of vomiting and colic ensued, and no movement of the bowel was obtained by the enema used. A recourse to the previously satisfactory treatment utterly failed to alleviate the increasing gravity of the symptoms. On Friday, the 12th instant, stercoraceous vomiting recurred. On the 14th, after an unsuccessful personal injection of four and a half pints of an enema composed mainly of olive oil, during which the rectal tube was carried into its full depth of two feet, it was felt that no delay in resorting to surgical interference should be made—as colotomy was clearly indicated. Inasmuch as in the introduction of the rectal tube a slight obstruction had been felt as its point reached the sigmoid flexure, it was deemed unadvisable to place too much reliance on this means of diagnosis, as the tube might have possibly bent on itself. A rectal exploration was therefore determined upon previous to the operation.

Feb. 15. This plan of procedure was confirmed in a consultation held with Drs. H. B. Sands and W. H. Thompson. The patient, who was in fair condition —pulse 112, temp. 100°—was etherized, placed on side, and the right hand, 22½ cm. in circumference, passed slowly, duly coned into the rectum. It was introduced without difficulty to the entrance of the sigmoid flexure, which was entered by the tips of two fingers. The intestine at this point was apparently healthy. With the hand in this position the lower border of the left kidney was readily recognized, the aorta a short distance above its bifurcation, and to the right the distended caput coli indistinctly felt.

The hand was then withdrawn, having been inserted to a depth of eleven inches by measurement. The possibility of disease of the sigmoid flexure had alone been excluded by the exploration. Dr. Sands's subsequent similar examination (hand of 19 cm.) only confirmed this statement. The results of the injections and introduction of the rectal tube, therefore, were entitled to full weight in determining the opening to be made in the ascending colon in the right side. It was noticed that during the rectal explorations the patient was much depressed, pulse feeble, surface pale, but respiration regular: so much change was manifested that it was suggested by one of the consultants that a fatty heart perhaps existed. By removing the ether and administering stimulants these symptoms soon passed off. They were probably due, as was afterwards shown, to the laceration of the intestine. Having rallied satisfactorily, the colon was reached by Bryant's oblique incision. Not, however, without first encountering the lower edge of the kidney, from which rehearsal on the cadaver had taught that the intestine could be found by going directly forwards. The gut was opened longitudinally, and about two quarts of fluid, light-colored fæces flowed out with relief to the somewhat tense abdomen. The intestine was stitched to the skin, and the balance of the wound loosely stuffed with carbolized lint. The opening was recognized to have been made at the angle formed by the ascending and transverse colon. The patient was greatly shocked by the operation, but by careful attention and by use of stimulants and heat, by 6 P.M. reaction was fairly established, the operation having been performed at 3 P.M.

She, however, gradually sank during the evening, and died at 2 A.M. Feb. 16.

The autopsy revealed the existence of a narrow band-like stricture at the middle of the transverse colon, admitting only the tip of the little finger, and formed by a growth in the walls of the intestine, and of a character yet undetermined. Above the stricture, in the fluid contained in the colon, was found an orange pit, coated lightly with hardened fæces. As this was the only solid body found, it was inferred that it might have occasioned the final obstruction. The gall-bladder was distended by reason of a large calculus plugging up its outlet. No adhesions existed here to indicate the escape by ulceration of a similar calculus, and consequent formation of the stricture. The liver and kidneys were in a state of fatty degeneration, but the heart was normal.

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* The danger is not referred to in the excerpts found in the following journals:

1. *Gazette Hebdomadaire*, No. 1, 1873.
2. London *Medical Record*, Feb. 12, 1873.
3. *Am. Jour. Med. Sciences*, April, 1873.
4. *Ranking's Abstract*, July, 1874.

And even in the London *Med. Record*, Aug. 20, 1873, which condenses an excellent translation of Simon's entire second article from the Cincinnati *Lancet and Observer*. May, 1873.

On raising up the small intestine from the pelvis about two teaspoonfuls of free blood was found in Douglas' cul-de-sac, and running from the level of the sacro-iliac synchondrosis to the bottom of the cul-de-sac, was seen, on the anterior aspect of the rectum, a rent involving the muscular and peritoneal coats. This longitudinal rent was really divided into two by an interposing band of longitudinal muscular fibres, but the ruptures had evidently been produced at one time.

The mucous membrane was intact, though congested and ecchymotic, from the anus nearly to the sigmoid flexure, which latter was quite small in size.

The portion of the colon showing the artificial anus and stricture, with the rectum, were sent to the Museum of the Roosevelt Hospital.

In concluding the remarks upon this case, it will be recollected that the hand was introduced to a distance of 11 inches, measured from the tips of the extended fingers—the fingers themselves measuring 4 inches, and although no force was supposed to have been used, yet the unconscious action of the wedge-shaped fingers must have been considerable.

Now the depth given by Simon to Douglas' ligament is 12–14 cm., on adding to this 5 cm., as the average mobility of the parts upwards, we have a total of 17–19 cm., as the distance beyond which it is inadvisable in general terms to introduce the greatest circumference of the hand, or, in other words, the hand can be safely introduced, if below 10½ inches in circumference, to a depth of from 7 to 7½ inches, measured from the knuckles. Such is the rule I should formulate, as it has been seen in Sands's case that a hand of 19 cm. inflicted injury.

It is worthy of remembrance that the erect position has been found by Dr. Peaslee to bring organs within reach that would otherwise be beyond palpation.

In examination for supposed stricture the degeneration of the muscular fibres from long disuse should be taken into consideration, as the friability of the intestinal walls is thereby often increased. As to what influence the lesion would have had in the subsequent progress of the case, had the patient survived, it can only be surmised. However, had the mucous membrane yielded to inflammatory necrosis, there would have been no reason to fear fæcal extravasation.

The case, in addition, corroborates, I think, very markedly the usefulness of enemata in the diagnosis of obstruction of the large intestine. Brinton, in his work on Intestinal Obstruction, calls attention to the importance of this means, and estimates that the large intestine would hold nine pints of fluid. This statement is here confirmed, the stricture being in the centre of the transverse colon and the intestine below it having a capacity of 4½ pints. A case of stricture of the upper part of the sigmoid flexure was satisfactorily diagnosed, a few years since, in my service at St. Luke's Hospital, by the injection of three pints of fluid, after having ascertained previously that the fluid did not pass through the stenosed portion of the intestine.

This remark recalls the fact which was demonstrated in the present case, as well as in others, and recently set forth by Dr. Battley, of Georgia, that injections can be forced from the anus out through the mouth.

19 East 32d St.

TRANSPLANTATION OF RABBIT'S CONJUNCTIVA FOR CURE OF SYMBLEPHARON.

FAILURE OF THE OPERATION—SUBSEQUENT SUCCESSFUL AUTOPLASTIC OPERATIONS.

By GEORGE E. POST, M.D.,

PROFESSOR OF SURGERY IN SYRIAN PROTESTANT COLLEGE AT BEIRUT.

Saba, ætat 25, had been under treatment for many months by a German surgeon for symblepharon. The deformity was as follows: The conjunctiva of the outer and lower aspect of the globe, and the corresponding lining of the lids had been lost, as the result of sloughing, and the globe was adherent by one-fourth of its periphery to the outer canthus. The cicatricial band was thick, red, and prominent, preventing the closure of the lids, and the cornea, closely tied by its outer margin to the external canthus, was in a state of panuus from exposure to the sun and air.

The treatment previously adopted had consisted in the passage of a silver wire through the thickness of the connecting membrane, in the hope that a fistulous track would be formed in the space between the globe and the bases of the lids, and that a subsequent incision would liberate the globe, and restore its mobility.

On the admission of the patient to St. John's Hospital, the attempt was twice made to supply the lost conjunctiva from a living rabbit, in the following manner: The rabbit being chloroformed, threads, each armed with two needles, were passed around the margin of a patch of conjunctiva, about the size of a nickel cent. These threads were passed at a distance of about a fifth of an inch from each other, around the whole circumference of the patch, half of which was ocular and the other half palpebral. The patient was in the meantime chloroformed, and the lid separated from the globe, and, all being now ready for the transplantation, the flaps were rapidly dissected from the rabbit's eye, and transferred to that of the patient. The coaptation was made very exact, and the eye dressed with picked lint and an elastic flannel bandage, as is my invariable practice after these operations. I have long since eschewed wet applications, as positively hindering the healing process, and irritating rather than soothing the parts. The whole of the transplanted flap sloughed, excepting a strip a line in width at the tarsal margin. A second attempt met with a similar result.

I now determined to transplant skin into the conjunctival sac. The operation was divided into several sessions.

Session 1st.—A flap of skin was taken from the cheek by cutting from the outer canthus downwards and inwards to the lowest part of the malar bone. The knife was then carried outwards a third of an inch, and then turned upwards and outwards until the incision reached a point three-fifths of an inch exterior to the external canthus, and on a level with it. The flap of skin was then dissected up from the subjacent tissues. One blade of a pair of probe-pointed scissors was now passed vertically behind the lower lid in such a way that its point was at the bottom of the conjunctival sac at the inner margin of the membrane of adhesion, and its cutting edge directed outwardly towards the canthus, while the other blade was placed on the canthus. On closing the scissors, the cicatricial band was divided to the level of the canthus, and with it the tarsal cartilage, and the remaining tissues of the eyelid, so that its outer third could be easily lifted away from the globe. The outer inferior margin of the flap was then attached to the tarsal margin, and its inner superior border was made to dip down into the space between the lid and the globe in the following manner: Threads, each bearing two needles, were inserted near its margin, and the opposite ends carried by their respective needles through the thickness of the lid from the base of its inner aspect to its cutaneous surface, where they were tied over a little piece of lint. By this process the raw surface of the transplanted flap was applied to the inner surface of the lid, while its inverted cutaneous surface was turned towards the globe, and served to replace the lost conjunctiva of the lid. The base of the flap was slightly twisted. The lips of the wound in the cheek were brought together by pins and sutures, and the orbit covered with lint. and bound with a flannel roller. Union of the flap in its new position took place throughout its whole extent, and no irritation was experienced from the intrusion of a cutaneous surface into the conjunctival sac. As the result of this operation, the outer canthus was much widened, the outer extremity of the inferior tarsal margin being separated from its fellow of the upper lid by the thickness of the intervening inverted flap. The corner was now free from the inferior lid, and the lining of that lid was of nearly normal breadth.

Session 2d.—A similar operation was now performed on the upper lid, the flap being taken from the temple in the following manner: An incision was made from the outer extremity of the superior tarsal margin (where outer canthus had been) directly upwards for the distance of an inch. The knife was now turned outwards, and carried a third of an inch horizontally, and then turned downwards and slightly outwards, and the incision completed to a point three-fifths of an inch exterior to the canthus, on a level with the tarsal border The band of adhesion between the upper lid and the globe was now divided, as before described for the lower lid, and with it also the thickness of the upper lid. The flap, being dissected from its subjacent attachments, was now inverted and secured to the lid as before mentioned. The transplanted skin adhered throughout, and the cornea was thus liberated from the canthus, the angle of which was now widely separated by the two flaps of skin. The thick fleshy mass of adventitious connective tissue, which had united the globe with the lids was now rolled together into a band like a pterygium, stretching from the corneal border to the junction of the bases of the transplanted flaps, which constituted the new canthus. This new canthus being bunchy and unsightly, owing to the twisting of the bases of the flaps, and both lids having a tendency to eversion, owing to the severing of the orbicularis muscle, a third operation was necessary to give symmetry to the external commissure.

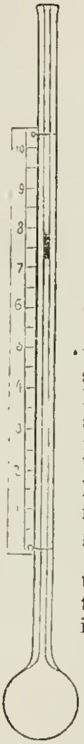
Session 3d.—After a period of two months from the last operation, in order to give time for the establishment of the nutrition of the transplanted flaps, the redundant projections were removed by cutting from the base of each flap an elliptical horizontal segment, half an inch in length by a quarter of an inch in breadth, in such a manner that the outer angles of the two denuded surfaces met, while their inner angles were separated by a third of an inch of skin, half of it from the lower flap and half from the upper. The denuded surfaces were now brought into apposition, and retained by twisted sutures. Union took place, and the result was a well-formed ocular apparatus, with a simply nebulous cornea, and an external pterygium, which is slowly diminishing in size, and which may be removed by a future operation.

THE CLINICAL THERMOSCOPE.

By EDWARD SEGUIN, M.D.

(A paper read before the New York State Medical Society, Feb. 3, 1875).

This little instrument is a simple application to medical diagnosis of the principles of physics on which Rumford and Leslie constructed their differential thermometer.



The clinical thermoscope is a glass tube, T, a quarter of a line bore, seven inches long, closed at one end by a bulb, B, nine lines in diameter, and open at the other end mouth-like, M, by a delicate enlargement of the rod. In this state it contains nothing but air.

To make the thermoscope ready for clinical use, the bulb is heated over a lamp or fire, sooner in a bowl of hot water, and when the air contained in the bulb is dilated a few degrees above the ambient temperature, the open end is quickly plunged in—an inch deep—and quickly withdrawn from another bowl of cold water. The drop or two, which will have then entered the mouth, is seen to run up the tube. If it stops near the bulb, it will be the index of the thermoscope. If it stops higher, say two or three inches from the mouth or if it runs into the bulb, the latter was too cold or too hot, we have to jerk away that drop of water and recommence: three or four trials to obtain a good water-index take hardly a minute.

In this condition, the air contained behind the water-index makes itself isothermal to the ambient temperature, and the thermoscope is ready.

It is applied—I do not say introduced—like the fever or surface thermometers, wherever an anomaly of caloricity is known or suspected. Its habitual place (lieu d'élection) is not however the axilla, it is the closed hand. In five to ten seconds the index has attained the maximum height or fall, of any significance.

To read it, we mark the starting-point of the index, the terminus of its course, and the time (in seconds) to reach it.

To take more mathematical observations, a movable scale is attached to the stem, and made to slide, in order to put its lowest figure on a level with the head of the water-index; so that the thermoscope is always correct—that is more than can be said of most of our clinical thermometers.

But with, or without a scale, it gives by contact indications (*a*) at the start, of the volume of heat escaping by radiation (*b*), at the end of its course, of the *portée* or reach of its velocity; whilst without contact, by gently blowing on the bulb, it shows the degree of combustion which takes place in the lungs, and other phenomena of heat which I have no place to explain.

Without a scale, a mother can tell at what hour the index rose quicker and higher, or quicker only, and not so high, etc. Without a scale, too, a physician who well knows his case, and is short of time, can, in less than ten seconds, decide upon the dynamic conditions of the next twelve or twenty-four hours, dependent on the waste of caloricity by radiation—that is to say, life itself in many cases—and prescribe accordingly.

The thermoscope may often be called to decide about the precise seat of an affection indicated only by general, reflex, or regional symptoms.—For a few days a business man felt dispirited, good for nothing, no hunger, no thirst, no true sleep; complained of cephalalgia, nausea, hypogastric pains. The fifth day he remained in bed and had several shivers. Seen in the evening, appearance prostrate, pulse 85, temperature 1 (one centigrade degree above the normal). The family were whispering fears of typhoid fever. This 1 (equal to 100.4° F.) could hardly be found the second evening of the abdominal typhus, but the fifth! Manual examination discovered nothing, the thermoscope revealed no difference of radiation between the right and left iliac regions; but proved a decided rise (half an inch) on the right of, and above the pubes. This indication was trusted; warm fomentation *in situ* of a decoction of digitalis leaves and elder blossoms, warm drinks and 5 gr. Dover powder brought on an abundant diuresis and a profound sleep, followed by an early start for business. What an opening for medication, if the thermometer had not told what the disease was not, and if the delicate thermoscopy had not limited the sick organ in the painful region!

Besides this daily use, the thermoscope criticises and comments some of the rare enigmatic findings of the clinical thermometer.—I was called to a man who had fallen from a three-story hatchway. I found a compound fracture of one leg, and a fracture of the skull; rather insensible to pain, full consciousness, jactitation, with a speck of erotism, pulse confused, temperature 98.5° F.; in other terms, at the point of perfect health. Was it derision or delusion? Neither; it was a compound temperature whose component elements escaped the fever-thermometer.

I tried the thermoscope. Put in the hand it rose, in the axilla it rose more, below the sternum it rose less, in the inner angle of the eye it fell rapidly. The thermoscope had discovered the point where extravasated blood was coagulating, at the base of the brain. Thus became comprehensible that sardonic 98.5° F.= perfect health in a dying man, as a compound temperature, whose composition could be schematically approximated by these figures: 100.3° F. of general pyrexia, balanced by 96.7° F. of hemorrhagic apyrexia, equals 98.5° F. This thermoscopic analysis saved the man further painful manipulations, and he died, as predicted, inside of three hours.

If we pass from the sick chamber to the death-slab, the thermoscope will prove to be yet the only "necrometer" founded upon the radiation of vital temperature; notwithstanding the joke practised on the Paris Academy of Medicine, to which *my* physiological thermometer was presented by M. Bouchut, as a necrometer, after displacing the zero from the point of health to a fanciful point of death.

To test the necroscopic power of my new instrument, I repaired to the Bellevue Hospital of this city. By the courtesy of Dr. E. Janeway, I was shown in the dead house, about noon, the body of a young woman brought in at 9 A. M. The thermoscope being applied below the sternum, its index did not move from the position it had taken in the ambient temperature of a very cold January day; but put in the axilla, it slowly and steadily rose about 6 centm. = 2 inches. A thermometer inserted instead, and kept in the same axilla fully ten minutes did not perceptibly move.

So the thermoscope, in contact with the living, shows the activity of their caloricity; and in contact with the dead, it ceases to indicate heat only when and where organic combustion becomes progressively extinct.

As thousands are, and have been buried alive, the invention of a true "necrometer" excites a deep interest, increased, if possible, since cremation is mooted. For some have knocked at their coffin and re-entered the world; but of what use would it be to knock for help inside the furnace? The proof of death is wanted now more than ever, and if I am not mistaken the thermoscope gives it.

I give this simple and costless instrument to my confrères, as I gave seven years ago, in THE MEDICAL RECORD, the "physiological thermometer;" begging them to try it in the spirit of candor which made Biot say: "We must not shun the humblest contrivances, when they can improve or supplement the *medical senses*."

N. Y., 17 E. 21st St.

A CONTRIBUTION TO THE TREATMENT OF EPISTAXIS.

By BEVERLEY ROBINSON, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPARTMENT OF THE THROAT), ETC.

EPISTAXIS is no infrequent trouble. At times it may be of slight importance, either because its efficient cause is ephemeral in nature, or else the loss of blood from the nasal passages is rather a fortunate circumstance than one to be regretted.

When, however, the patient is weak and laboring under some general diathetic dyscrasia, or when the epistaxis becomes abundant and the cause of it is obscure, we shall then have a condition of things which almost of necessity occasions solicitude.

Our desire and duty become in an equal degree imperative to employ surely and rapidly such means as we may be able to utilize in order to arrest bleeding.

Generally speaking, recourse is had to cold, topically applied, and the employment of some one of the various mineral or vegetable astringents.

Simultaneously, or at a later period, drugs having a special corroborant or styptic action are prescribed to be taken by the mouth.

To these have been added, within a brief period, those medicaments which act through the vaso-motor nerves, and tend to contract vascular walls. If all the above means fail of success, posterior, or both posterior and anterior plugging of the nasal passages is considered and freqently put into execution.

What the trouble to the physician is, how great must be the annoyance and unpleasantness to the patient who submits to the operation we all know, either from our own experience or that of others. Besides, we are aware that it is only by care in the timely removal or renewal of the plugs that we can surely avoid certain attendant risks of septicæmia. Any mode of treatment, therefore, which has been adopted, when the agents usually employed have proved to be inefficacious, and has been productive of the happiest results, will, we doubt not, receive a welcome from our colleagues.

Such a case, where obstinate bleeding was completely arrested by compression of the facial arteries, we shall now relate:

CASE.—R. S., aged 62, medium constitution, residing in Savannah, Georgia, came to New York City, and was received as an in-patient at the Manhattan Eye and Ear Hospital, September 4th, 1874, to be treated for cataract. A few days later, a successful operation was performed by Dr. Cornelius R. Agnew upon the affected eye, and during the first week of November, the patient had recovered from the effects of the operation, and had obtained permission to return home. While out walking, November 11th, our patient was suddenly attacked with bleeding from the nose. The loss of blood at this time was quite abundant, and from November 11th to November 20th, notwithstanding the use of ordinary agents to arrest bleeding, the epistaxis frequently recurred during day and night. Finally, the condition of the patient was such as to occasion much anxiety both to herself and her medical attendants. Local applications of the astringent sort, had been freely used, and these (alum, tannin, etc.), were insufflated, under the form of powder, into the nasal passages, and also employed in strong solution by means of the posterior nasal syringe. Cold compresses upon the nose and forehead were also tried, and the patient was placed in a room at a somewhat lowered temperature.

By the application of the topics above mentioned, clots were formed in the nasal passages, and the bleeding stopped temporarily. In a few hours, however, oozing of blood took place about the margin of the anterior clots (especially the one on the left side), and between them and the alæ of the nose.

Two days after this mere local treatment was begun large doses of quinine, given internally, were added to it. And this was done for two reasons:

1st. Because the patient informed us that she had had a severe attack of malarial fever six years previously, and since that time occasionally experienced chilly sensations which she attributed to this poisoning.

2d. We believe that from the well-known action of sulphate of quinine to contract or lessen the calibre of small vessels, we might fairly hope it would be of service.

Unfortunately we were deceived in our anticipations, and though we gave as much as thirty grains of quinine in eighteen hours, and continued it during three days, it remained without appreciable effect. We were prevented from still further increasing the dose by very unpleasant symptoms of giddiness and buzzing in the ears.

On Nov. 16th large doses of tincture of the chloride of iron (30 gtt.), combined with small doses of quinine (2 gr.) were prescribed to be taken every four hours; also similar doses of fluid extract of ergot (viz., 30 gtt.) every four hours, with the injunction that the ergot should be given two hours before or after the exhibition of the iron and quinine. In this way the patient would not be more than two hours, except during those of sleep, without taking medicine internally.

The styptic and tonic action of the iron, as well as the influence of ergot on the vaso-motor nerves, and through them on muscular fibre, remained equally inefficacious. After two or three days of the above treatment, the clots were washed from the nasal passages, and plugging by means of the India-rubber bag, as recommended by Salvatore Caro, M.D. (vide Med. Record, August 15th, 1874), was attempted.

This method proved equally fruitless with what had already been tried in stopping the flow of blood.

We now commenced, whilst continuing the use of iron, quinine, and ergot as above, compression of the facial arteries upon the superior maxillary bones, just before they reach the alæ of the nose, by means of two small pads made of lint. These were sewed to a piece of tape at the proper distance from one another, and the ends of the tape were passed across the cheeks and above the ears, and tied securely behind the occipital bone.

This treatment achieved the happiest consequences, as will be seen from the following notes:

November 22d. Patient continues to take fluid extract of ergot and tincture of iron with small doses of quinine. Compression of facial arteries almost unceasing since first applied. On one occasion only the tape and pads were removed in order to ease the patient, who complained somewhat of the discomfort caused by them, and the bleeding immediately recommenced. General condition improved; patient stronger and less anxious.

Treatment.—Continue iron and quinine, and pressure with pads on facial arteries; nourishing food; discontinue ergot.

Nov. 24th. Patient continues to improve in strength and morale. So soon, however, as she takes pressure off facial arteries bleeding reoccurs.

Nov. 30th. Bleeding has stopped altogether for several days. Patient left hospital.

We do not, of course, believe that by compression of the facial arteries we shall be able to arrest all cases of bleeding from the nose. We trust, however, it may frequently be adjoined to other treatment with marked benefit to our patient, and by itself may prove of the greatest utility in exceptional circumstances where other means are not at hand. For, in point of fact, it is from the septum that takes origin many of our worst cases of epistaxis, and it is this portion of the nasal passages which receives its arteries mainly from the terminal branches of the facial. By compression of the arterial trunk we must, of course, greatly diminish, if we do not stop absolutely, the afferent blood flow.

This treatment, then, is *rational*, and whenever experience is capped by reason we are better satisfied with, and more willing to accept, it.

A word with respect to the instrument described and landed by Dr. Salvatore Caro, and to which we make reference in the history of our case. We regret to say that in our hands this instrument did not work satisfactorily, and for the following reasons:

1. When *air* is blown in by the tube the bag dilates unequally, and, besides, dilates either more or less than we desire.

And further, we have no means of accurately determining how much the bag has in reality dilated, except our tactile sensations, which are furnished by the right index finger passed behind the velum. Of course if the inflated bag should come into contact with the pharynx, where we are able to see it, *gagging* is, of necessity, immediately occasioned.

2. The sides of the catheter attached to the bag are too *firm*, and when we used pressure on them with the fingers, or by means of a cord tightly tied, so as to prevent the return of the air blown into the bag, we found it impossible to accomplish our object.

3. Owing to its unequal dilatation, the bag is apt to give way in some particular point, and allow the air to escape, and consequently the sides of the bag to collapse. Are these objections avoidable? We believe they are, if the following indications be carried out:

1. The bag should be made of rubber, which shall dilate *equally*, and the amount of dilatation to be given may be limited by an outer covering to the bag, which is inelastic and sufficiently strong to resist a certain amount of interior pressure.

This outer bag should have a capacity, when expanded, somewhat superior to the dimensions of the posterior nares, and be made of some very light, smooth material.

2. The conductor-tube should have a faucet attached to it near its distal extremity, so that the air or water

could be shut up in the bag as soon as it is filled with either one of these fluids.*

15 West 26th Street, *March*, 1875.

TWO CASES OF SYMPATHETIC DISEASE FOLLOWING LONG STANDING PENETRATING WOUNDS AND LODGEMENT OF FOREIGN BODIES IN THE EYE.

By Wm. Shaw Bowen, M.D.,

OPHTHALMIC AND AURAL SURGEON TO THE HARTFORD HOSPITAL.

Case I.—Mr. W., æt. 51; vision was lost in the left eye seventeen years ago, by the penetration of a spicula of metal impinged against the cornea with force from a drop press.

Severe pain and inflammation followed, and in the course of a week it was discovered that vision had wholly disappeared.

Patient was first seen June 30, 1874. The left eye was normal in size, a small macula at the inner side of cornea. Ciliary redness in a marked and limited zone; iris disorganized, of a reddish-brown hue; aphakia and iridodonesis. Tension—1 of Bowman. Fundus obscured by reddish-brown reflex on examination with the ophthalmoscope. The right eye shows an injected ciliary zone, tender on digital pressure, and a discolored iris. Complains of photophobia and lachrymation. $V = \frac{12}{20}$. Optic disk, hyperæmic; marked choroidal congestion, especially in the region of the macula.

Patient is depressed and despondent; cannot pursue his business. Immediate enucleation advised, and performed; the eye was placed in Müller's fluid immediately afterwards. Tonics of iron, quinine, and cod-liver oil; Huerteloup's artificial leech applied to the temple.

Sept. 10. Ciliary redness entirely gone. Has had slightly increased choroidal trouble since the enucleation, but is now free from photophobia and pain. $V = \frac{18}{20}$; general health much improved. Attends to his business.

The eye was removed from Müller's fluid September 30th, and laid open. Choroid degenerated; vitreous filled with flocculent matter; retina separated almost its whole extent by hemorrhage from the choroid.

The spicula of metal, 2½ mm. long and 1 mm. in diameter, was found impacted in the optic disk, about 1‴ from the outer end of its horizontal meridian, and so firmly lodged that traction was necessary to dislodge it. No traces of lens capsule. Ciliary body in an inflammatory state.

As long ago as 1862, Pagenstecher considered (Klinische Beobachtungen, Heft 11, p. 48) that the irritation leading to inflammation is conducted through the sympathetic system; and remarked that independently of the optic as a nerve of special sense propagating an injurious influence in a retrogressive direction, the primary effects of the sympathetic ophthalmia would under such circumstances appear in the retina and not in the choroid. The above case affords a good instance of injury to the great nerve itself, and the sympathetic inflammatory disturbance deferred for an exceedingly long period of time, almost exceptional in length of duration, and then excited into a flame only when the uveal tract was thoroughly diseased and disorganized.

Case II.—Mr. G., æt. 42, blacksmith, nine years ago was struck by a piece of iron from an anvil, at the inner sclero-corneal junction of the right eye. At the time of the receipt of the injury he was uncertain whether the metal passed into the globe or not. Severe pain and inflammation followed, and he was confined in a dark room for seven weeks. At the expiration of this time $V = 0$ in the injured eye. Has pursued his occupation since without annoyance, save occasional attacks of neuralgia of the globe and eyebrow, and slight redness of the globe, and conjunctiva of the lids. Left eye free from trouble of any kind until August last, when the patient experienced intermitting pain with photophobia. The injured eye at the same time showed ciliary injection, and was painful to the touch. On inspection the right eye was normal in size, a marked ring of ciliary redness; the iris reddish brown, and tremulous at the inner side; pupil moderately dilated. Aqueous somewhat turbid. Tension normal. Left eye normal externally. On dilatation with atropine the ophthalmoscope revealed sympathetic disease. A moderate atrophic crescent at the outer border of disc; choroid hyperæmic. Intolerance of light so great as to require the use of a smoked glass ophthalmoscopic mirror. $V = \frac{18}{20}$.

Immediate enucleation of the injured eye advised, and performed the following day under æther: the globe was placed in Müller's fluid. Sympathetic disturbance entirely disappeared in a week, with the aid of iron, quinine, and the artificial leech. After remaining in the hardening fluid five weeks, the globe was opened by an incision through its vertical axis. The retina intact; vitreous turbid, filled with flocculent matter. The lens was displaced to the outer side of globe, opposite the point of penetration of the foreign body, and at this point the ciliary body was enormously enlarged, measuring five mm. in thickness. The choroid attenuated, and in one place, near the ora serrata on the inner side, beneath the internal rectus muscle, was gelatinous, with a flake of blood between it and the sclerotic.

Iris attenuated and friable. The fragment of iron was not to be found until the ciliary body was laid open, and a bit of metal as large as the head of a small pin was imbedded in its fibres.

This case is remarkable from the nature of the injury, and from the length of time that ensued between the primary wound of the ciliary body and the commencement of the sympathetic irritation of the opposite eye. A foreign body occasionally may remain in the globe many years without unpleasant sequelæ in the other organ of vision; but the literature of ophthalmology does not, so far as can be ascertained, afford a similar instance of the penetrating substance remaining for so long a time encysted in the tissue of the ciliary muscle without sympathetic irritation and disease of the fellow eye.

That the ciliary nerves are the medium of propagation, there is no doubt, and an injury to the place of distribution of those nerves of course would act as an immediate irritant, and the effects of this irritation usually appears after a short interval of time in the opposite organ.

The point of puncture, and its neighborhood, had been tender and painful for weeks prior to the commencement of disease in the left eye, and the patient was urged in vain to submit to the procedure of Dr. Meyer, who has successfully divided the fibres of th ciliary nerves at the point where the sensitiveness is localized.—(*Annales d'Oculistique*, Sept., 1867.)

Hartford, Conn., Feb. 3d, 1875.

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* Such an arrangement is, we are informed, figured in Ziemssen's New Cyclopædia of the Practice of Medicine, in the chapter on Diseases of the Nasal Passages.

Progress of Medical Science.

HUETER ON THE RELATIONS BETWEEN SCROFULA AND TUBERCULOSIS.—Professor Hueter of Greifswald published some time ago an interesting and ingenious theory explaining the nature of the two pathological conditions, scrofula and tuberculosis, and their relations to one another. These views have met with comparatively little notice, though they appear valuable, as tending to shed light on obscure subjects.

Hueter states that *scrofula is the soil in which tuberculosis is produced* and upon this proposition he bases his theory and practice.

He does not attempt to describe the meaning of the terms scrofula and tuberculosis, but gives a general picture of them and develops his picture as follows, though it is confessedly hypothetical. Our protection, he says, from the various sources of inflammatory irritation with which we are surrounded, especially those suspended in the air, depends upon the epidermic and epithelial coats of our skin and mucous membranes. Let us suppose, then, he adds, the case of an individual in whom this protecting coat is not perfect but presents numerous interspaces or breaks, the little pores which the microscope has shown to exist between the epidermic and epithelial cells. Such an individual would be especially susceptible to external influences, because he offers ample opportunities for the entrance of disease germs. He may therefore be called very "irritable" or "vulnerable." which increased vulnerability and irritability however cannot be considered as exactly corresponding to our conception of scrofula, and still they are to be regarded as lying at the basis of scrofula. Following closely upon this fact he observes that we recognize in inflammations of scrofulous patients a tendency towards extension both in space and time. We call a person scrofulous when inflammations extend from place to place upon his body, and when they are cured with difficulty or only after a long time. Such phenomena our author feels justified in assuming to be connected with the degree of development of the plasmatic system, to which the pores of the rete Malpighi, already referred to, likewise belong. Accordingly, the greater development of this system in childhood as compared with adult life teaches us the reason that scrofula is so pre-eminently a disease of that period, and so the expressions a "pasty" or "spongy" look, a "lymphatic" constitution, etc., are warranted by anatomical facts. In the next place, tracing the irritating particles and their inflammatory products into the lymphatics and associated lymphatic glands, he declares that "lymphadenitis is one result, but not the first expression of scrofula." He regards the cheesy metamorphosis of the lymphatic glands, which is the next feature observed, as the result of a continuous, slight irritation produced by these particles, and he agrees with Billroth in the opinion that the cheesy portions do not, as a rule, result from pre-existing abscesses, but are merely the cells left crowded together, from which the fluids have drained away owing to the incomplete circulation of the lymph in the affected glands. As he follows up the successive manifestations of the scrofulous affection his next statement is that scrofula begins with the local inflammations which are seated on the peripheral side of the lymphatic glands, and which finally culminates in the cheesy infiltration of these glands, and this is the first indication of a danger involving the life of the individual. The pre-existing inflammations may, of course, have jeopardized the functions or integrity of the organs where they occurred. He feels compelled to answer almost positively in the negative the question whether these cheesy infiltrations may terminate in resolution. Though not outside of the limits of possibility, such an issue is extremely improbable. After months or perhaps years of passive inactivity the cheesy infiltration, as a result of some new irritation, becomes the seat of a subacute suppuration, which is most commonly found in the peripheral layers of the glands. These abscesses are apt to be subcutaneous, and to break externally, and thus sometimes a cure is effected. And now we come to the important question of how scrofula passes into tuberculosis, for at some time after the development of the cheesy infiltrations, we are likely to observe hectic fever, and all that group of objective symptoms which are known to be characteristic of the latter disease. Hueter rests his explanation chiefly upon the experiments of Fränkel and Cohnheim. It is that the finely granular detritus of the cheesy infiltrations, when the plasmatic channels and lymphatics are opened by the occurrence of suppuration, is set free, and finds its way through the blood-vessels into the lungs, and finally into the general circulation. These granules ultimately become lodged either in some capillary blood-vessels or lymphatic, and form there minute emboli, around which the white blood-corpuscles collect, and we thus have miliary tubercles. The process is, in fact, a pyæmia, with innumerable minute inflammatory metastases. This explanation derives support from the clinical observation that the suppuration of the cheesy focus generally precedes the development of miliary tubercle. Coming now to speak of treatment, our author insists upon the importance of the well-known anti-scrofulous general treatment, and upon suitable attention to local inflammations. Moderate enlargements of the lymphatic glands will often yield to general treatment; but when these are as large as a pigeon's egg or hen's egg, and obstinate, he protests against further delay, and urges their *extirpation by the knife.* The glands most likely to require the operation are the submaxillary group, those on the anterior and posterior borders of the sterno-cleido-mastoid, and those under the chin. He considers the operation free from danger in the hands of a competent surgeon, and believes that it is most urgently demanded so soon as suppuration occurs in the glands which are the seat of cheesy infiltration, and that the least which even a timid practitioner should do would be to lay open the abscess freely, so as to allow the broken-down cheesy matters to escape. He urges the application of the same principles of treatment to scrofulous inflammation of the testicle and epididymis, and also to that of the bones and joints of the extremities. In the latter he therefore practises resection of the joints, or he opens and removes the osteomyelitic foci. —*Volkmann's Sammlung klin. Vorträge*, No. 49.

* * *

VACCINATION IN ROME.—In January last the Provincial Sanitary Council of Rome, finding that animal vaccination in Rome and in the entire province was unsuccessful, unanimously urged the Minister of the Interior to nominate one of its members as the provisional conservator of vaccine for the commune of Rome. The minister has given notice to the Prefect of Rome, that, in the official vaccinations in the province, animal lymph is to be abandoned, and humanized lymph used as was formerly done.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE MEDICAL CHARITY SYSTEM OF IRELAND.

In a previous number we remarked upon the means which might be taken to discriminate in the dispensation of our medical charity to the sick poor. Although we do not pretend to have exhausted the subject, the suggestions which have been offered are, perhaps, well suited to the circumstances of the government of the various charitable institutions. It is true that the management of each of these charities is different, but in the main there does not appear to be any danger of militating against any important regulation by adopting the simple plan which we have proposed.

Naturally following the discussion of the best means to insure the greatest good to the recipients of the services of these institutions, is the question concerning the pecuniary capabilities of the institutions themselves. As a rule, most, if not all, of these institutions are behindhand in funds necessary for their support. Even with some of the older ones it seems to be a question of time and exertion how long they can continue the performances of their good offices. The burden of their support is oftentimes very unequally borne by a few benevolent individuals, who, rather than see the institutions fail, not only liberally contribute themselves, but make the most strenuous efforts in the direction of begging from others. This is not as it should be, but how to remedy the difficulty is a question which has been earnestly and thoughtfully considered by all interested in the continued prosperity of these necessary means of charity. It is with the greatest difficulty that any appropriation can be obtained from the Legislature; in fact, there is as much effort to secure them, as much influence brought to bear as in lobbying through the schemes of selfish speculators or heartless monopolists. Very often, too, in spite of the best directed efforts, a failure to secure any aid whatever is almost a foregone conclusion. So long as we make these matters a subject of supplication this will doubtless always be the case. Until the managers can claim such appropriations as a matter of right, we can hardly expect any change for the better. The way to have such a claim well established is to secure the enaction of a law for the proper care of the sick poor, and relieve the managers of the responsibility of maintaining from year to year a healthy solvency of their institutions.

In regard to the effective working of a law having this end in view, we can learn a great deal from the experience of other countries, and particularly that of Ireland. This country can afford the best example of what can be accomplished by well-organized charities, because it is generally considered to be the poorest in Europe. Notwithstanding this fact, the publicly relieved pauperism of Ireland has, during the past five years, been only thirteen per thousand of the population, while that of England has been as high as forty-six per thousand. This difference in the pauper rate is largely due to the dispensary system which exists in Ireland, but which does not exist in England. As a system it is a model, and in consideration of some of the means to be taken to secure a reform in our own institutions we cannot do better than refer to some of the provisions. The law in question has at least the merit of having been thoroughly and satisfactorily tested, and if it does not serve as a guide to a prospective legislation on our part, it offers at least many useful suggestions.

Ireland is divided, for poor-law purposes, into one hundred and sixty-three Poor-Law Unions. It is further subdivided into between three and four thousand electoral divisions, each division electing from one to four poor-law guardians to represent it at the Board of the Union. The tax-payers of each division support their own poor. The medical charities form part of its poor-law system of relief, and in the one hundred and sixty-three poor-law unions there are over a thousand dispensaries. There are over seven hundred dispensary districts, which are attended by a suitable number of physicians, apothecaries, and midwives. The elected guardians of the union have control of the whole, and have the power to nominate and appoint dispensary committees, which committees manage each institution. Medical attendance can be had at all hours, although many of the dispensaries in the rural districts are not opened oftener than one or two days in each week. The poor-law guardians appoint wardens in every dispensary district to distribute tickets. These officers are well-known gentlemen, and are accessible at all times. The ticket system is carried out to perfection. A white ticket entitles the holder to attendance at the dispensary, while a red one entitles him to attendance at his house.

Each poor-law union has a public hospital, to which all suitable cases are sent by the dispensary physicians. There is no part of Ireland, in fact, which cannot receive immediate aid for its sick poor. In the most remote districts no person is more than six miles from any public dispensary. The medical officers of the rural charities are salaried, receiving from $300 to $750 per annum. The taxes for the support of this system are levied on the annual rental value of property, and the rate is in proportion to the number of paupers to be maintained. Vast as is the system, and large as is the number of sick attended, the expense is comparatively trifling. According to the last returns, relief was afforded to 837,669 persons for the sum of $585,194. This sum includes all possible expenditures for rental of buildings, salaries, medicines, food, fuel, etc.

In almost every particular the system of poor relief in Ireland commends itself for our imitation.

Reviews and Notices of Books.

A PRACTICAL TREATISE ON THE MEDICAL AND SURGICAL USES OF ELECTRICITY. Including Localized and General Faradization; Localized and Central Galvanization; Electrolysis and Galvano-Cautery. By GEO. M. BEARD, A.M., M.D., and A. D. ROCKWELL, A.M., M.D. New York: William Wood & Co. Second Edition.

AFTER a careful perusal of this work of 794 pages, including nearly 200 excellent illustrations, which reflect great credit on the publishers and editors, and after a close analysis of 250 cases treated, we are fatigued but not convinced.

In the first place, the word electro-therapeutist occurs too frequently. We have for some time past decided to give up the use of this term, for the following reasons: it sounds too much like hydro-therapeutist, and one is as good as the other; we cannot classify an electro-therapeutist or say where he belongs; there is some danger of its becoming an epithet of reproach, a wish to avoid which is natural; in short, a regular physician can study electro-therapeutics, but he cannot be an alcohol, balneo, or electro therapeutist. The distinction seems sufficiently clear, and we have been unable to find any such expression in the works of Remak, Althaus, Ziemssen, Rosenthal, and Onimus and Legros. It is used once or twice by Benedikt and often by Cyon, but by the latter in no terms of praise. We would suggest "medical galvanists," the term employed by Althaus, as a better name for those who treat disease solely by electricity. This point we dwell upon because it seems to us important, and is evidently so regarded by the authors of the work before us, for on pages 250 and 251 we read, "Any idiot or mere infant can hold two sponges on the body while the current is passing, and if that were all of electricity in medicine, writers on this subject would be needless. A dose of quinine or opium any fool can give or take, but to know when to give these drugs, how to give, and when not to give, requires oftentimes the best skill and experience. Similarly with electricity." Electro-therapeutics is not a science, and while we admit that an infant cannot treat disease by electrical applications, we hold most emphatically that any wise physician ought to be thoroughly competent to do so, and that most of such are competent. A feature of this work therefore—and so important does it seem to us in its relations to the medical ethics of specialists, that we leave little space for the consideration of others good or bad—is the apparent desire on the part of its authors to show that electro-therapeutics is a science which has made great progress since Remak's time, and that long and patient study is required before its details are mastered. Whereas the truth of the matter is, that no great progress has been made, and that any sensible doctor of medicine can fit himself in a month's time, at most, to make all the applications as well as the so-called masters, and then proceed to build up a therapeutics of his own. Exclusive of those recorded under electro-surgery, notes are given of 223 cases. Out of these 29 are of hysteria and allied affections, and in all but two, general faradization and central galvanization were the remedies. The results, in general, were favorable, but there is certainly no science here, for hysteria interposes too many sources of error. In the cases given of cerebral and spinal congestion we have but to doubt the diagnosis, and in most of the cases of various affections which follow, although the cures are sometimes remarkably brilliant, there seems to be little evidence of any special skill displayed in their treatment. To convince the reader that there is a real call for the above criticism, we refer him to chapters 1 to 3, inclusive, of the part devoted to electro-therapeutics. Such claims cannot be passed over in silence.

Electro-physics is admirably well treated of, and we can especially commend chapter 7, on Ohm's law. One hundred and eleven pages are devoted to electro-physiology. The authors appear to endorse Prof. Trowbridge's views against those of Du Bois-Reymond, on the so-called animal currents. The question is by no means settled, and as no attempt has been made to connect animal electricity with therapeutics, the pertinency of the discussion hardly appears, unless it be offered as an excuse to the reader for the remarkable statement on page 100, and to which we strongly object, as being by no interpretation true: "Electro-physiology cannot become a reliable basis for electro-therapeutics." We deny this in the name and in the interests of scientific medicine. Therapeutics is an art. Physiology is a science; and aided by chemistry and physics, has always been, and will ever remain the only reliable foundation for all therapeutics. We can do no better than to quote here an extract from a review of recent works on medical electricity (*Chicago Journal of Nervous and Mental Disease*, vol. I., No. 2, p. 209): "Still the practice of electro-therapeutics is yet largely empirical; and the amount of professional ignorance on the subject, even among otherwise well-informed practitioners, is something astonishing. And not only this, but this empiricism is even commended as the only true route of progress in this direction; and a distinguished authority has recently advised that the practitioner should make no attempt to master the principles of electro-physiology, and has expressed the opinion that practical electro-therapy is independent of, and in advance of physiology. We always regret such utterances on the part of educated physicians. They are too much like the cant of narrow men, who would deny the value of the very labors the results of which they utilize, and without which any other than the merest hap-hazard progress is impossible."

SPINAL PARALYSIS OF THE ADULT; ACUTE, SUBACUTE, AND CHRONIC. (INFLAMMATION OF THE MOTOR TRACT OF THE SPINAL CORD.) By E. C. SEGUIN, M.D., Clinical Professor of Diseases of the Mind and Nervous System at the College of Physicians and Surgeons, New York. Read before the Academy of Medicine, and reprinted from its Transactions.

DR. SEGUIN has made a contribution to medical literature, the value of which we hope will be appreciated. His cases have been reported with characteristic minuteness, in striking contrast with too many which may be found in similar works. The author admits (page 35) that "the elements for discussing the problem (as to whether the lesion be inflammatory or degenerative) are not yet in our hands," and it seems therefore somewhat premature that he should introduce a new name based on an apparent assumption that the problem is solved. "Spinal Paralysis of Adults" seems to us a preferable expression to the one suggested, until we obtain more light on the pathogeny of nerve-cell degeneration. We are glad to endorse what has been so ably presented under the heads of semeiology and diagnosis, and are sure that a real service has been rendered by thus indicating the features which distinguish this from other affections and especially progressive muscular atrophy.

The Diseases of the Stomach. The third edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and Enlarged. By Wilson Fox, M.D., F.R.C.P., F.R S. With Illustrations. Philadelphia: Henry C. Lea. 1875.

The book contains in a condensed form many facts and doctrines which are of essential value to the general practitioner of medicine. It is in this that its chief value consists. For without doubt, unless we except some observations of the author, all the teachings contained in this volume may be found in other works. It is the delight of the general practitioner, however, to find condensed treatises upon medical subjects which will bring before him practical results, without being obliged to struggle through ponderous works that may have been written to substantiate the same. This little work will therefore still be read with interest.

The style of writing is clear and forcible, and although some doctrines are set forth which are still regarded as unsettled, they belong more to the special department of pathology and physiology than to the every-day management of a class of diseases which is extremely perplexing.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D., Prof. of Obstetrics and Diseases of Women in the College of Physicians and Surgeons, New York, Surgeon to the New York State Woman's Hospital, etc. Fourth edition, thoroughly revised, with one hundred and ninety-one illustrations on wood. Published by Henry C. Lea, Philadelphia. 1874.

The reputation of this book is already too well established to be affected by compliment or criticism. The exhaustion of three large editions within five years, a translation into German, and the prospect of speedy translations into French and Italian, are special compliments, however, that can safely be taken as evidence of the intrinsic value of the work.

It is entirely unnecessary to attempt an analysis of the contents of the book, for those who possess it are already aware of its excellence. The number of practitioners of medicine who do not possess it is so small that it is not worth while to consume time in a vain endeavor toward their enlightenment.

In the last edition we still have a volume valuable for the student, valuable for the practitioner, and valuable for the teacher. The style of composition is very good, yet might be improved in many instances. The teachings of the book are at variance with the teachings of many eminent men in this department, yet they are so plainly stated and so reasonably argued that they must carry conviction with them. Many additions have been made in the present edition, and it has apparently been the aim of the author to bring his work fully up to the present advanced state of gynecological science. In that effort he has well succeeded.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 24, 1875.

Dr. F. Delafield, President, in the Chair.

Dr. Weir presented a specimen of lumbar colotomy (vid. p. 209).

Dr. Keyes exhibited a specimen of impacted urethral calculus which had been removed by a novel method (vid. p. 163).

PRECOCIOUS DEVELOPMENT.

Dr. Blake presented the cranium of an infant, which illustrated some very remarkable facts in connection with precocious development. There was an ossification of the cranial bones, and of some of the sutures. The child was born at full term, and was as large as one four months old, and as far advanced in its general development. The following were the measurements in inches:—

Dimensions of the Head—Occipito-mental, 6½; occipito-frontal, 6; perpendicular, 5; transverse, 4½; temporal, 3½; round head over ears and under chin, 14¾; over chin, 16. *Thigh*—Circumference, 7, and calf, 4¾. *Chest*—Circumference under axilla, 13½; breadth of shoulders across back, 7. *Arm*, over biceps, 4½; circumference of forearm, 4⅞; length to point of shoulders, 8½.

Dr. Putnam-Jacobi remarked that the first child was more apt to be disproportionately large and well developed as compared with the succeeding ones. The fact was probably best explained by the sedentary habits of the prospective mother, this very inaction tending to concentrate so much physical force towards the development of the fœtus in utero.

Dr. Blake stated that this was precisely the condition of his patient, she having been directed to lead a sedentary life in the fear of a miscarriage.

Dr. Heitzmann presented a specimen of catarrhal pneumonia removed from an infant who died while under the care of Dr. Lewis Smith; and detailed the microscopical appearances of the pleural epithelium when stained with solutions of nitrate of silver and chloride of gold.

COMPOUND FRACTURE OF PATELLA FROM MUSCULAR VIOLENCE.

Dr. Mason presented a specimen of compound fracture of the patella, removed by amputation from a man aged twenty-five years. This patient had fractured his right patella by muscular violence, December 26th, 1873, was treated for the same in Bellevue Hospital, by plaster-of-Paris dressing, and was discharged the 15th of April following, with a stiff knee. On the evening of the 2d of January, 1875, he fell in the street, flexed the injured leg very strongly under him, separated the ligamentous band of union of the patella, tore through the tendon of the quadriceps, and besides cut the skin overlying the condyles to the extent of ten inches. At the time of the accident, the patient could place the forefinger between the two fragments, and he could flex the knee three inches. The wound was dressed with carbolized oil, and the limb placed upon a splint. Notwithstanding every care, the joint became disorganized, necessitating amputation at the middle and lower thirds of the thigh, which operation was performed January 25th. Dr. M. having a case of pyæmia in an adjacent ward, took particular pains to guard the patient against infection, but seemingly to no purpose, as death from that disease occurred on the tenth day after the operation. The specimen was of interest as an example of compound fracture of the patella, the result of muscular violence.

PARTIAL STRICTURE OF INTESTINE—PURULENT INFILTRATION OF RECTAL WALLS.

Dr. **Delafield** exhibited specimens removed from the body of a patient of Bellevue Hospital, who, three months before admission, sustained a severe injury of his shoulder by a fall. He, however, was able to continue his work as a laborer until three weeks before seeking hospital relief. He then felt that he was losing the use of his legs, and within a few days he had complete paraplegia. When he was brought into the hospital the power of motion in both legs was lost, but there was still some sensation left. It was found, on examining the spine, that over the seventh dorsal vertebra there was an angular curvature outwards, and it was supposed that either a fracture had occurred, or that caries existed at that point. Three days before his death he was suddenly seized with incessant vomiting, and at the same time his abdomen began to swell. Before this he had suffered from constipation, but this condition was not difficult to relieve by the usual purgatives and enemata. The swelling of the abdomen was tympanitic in character, and this, with the vomiting, continued to increase until death. At the autopsy the seventh dorsal vertebra was found almost destroyed, its body being converted into a cheesy mass, presenting the ordinary appearance of caries of the spine. In consequence of the destruction of this body, the spinal cord was bent and compressed. The points of greater interest were found in the abdominal cavity. The small intestine, from the lower part of the ileum to the duodenum, was very much dilated, and was coated by recent fibrine. On following down the small intestine, it was found that in the lower part of the ileum there were two points of obstruction, due to the coiling of the gut upon itself, the result of old peritonitis. In the lower part of the colon, just above the sigmoid flexure, there was another small obstruction, produced in the same way. None of these obstructions were complete. On following down the large intestine to the rectum, the entire extent of the latter was infiltrated with pus, this pus being situated between the peritoneal and mucous coats. There was some slight purulent infiltration of the surrounding tissue. The patient's history did not throw any light on these conditions, neither did they seem to have given him any special trouble. The noteworthy point was the purulent infiltration of the walls of the rectum, without any coexistent disease of the mucous membrane, and apparently not caused by anything existing in the pelvic cavity.

The Society then went into executive session.

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Dr. **Joshua Riley**, of Georgetown, Md., died recently of angina pectoris, aged 75 years. He graduated at the University of Maryland in 1824, soon after which he commenced the practice of medicine, and located in Georgetown. From 1844 to 1859 he occupied the chair of Materia Medica in the Medical Department of Columbian College, and for many years was President of the Medical Association of the District of Columbia. At the recent meeting of this society appropriate resolutions were passed, and remarks were made by Drs. Grafton Tyler, L. Mackall, jr., Armistead Peter, Noble Young, J. F. May and Leibermann.

Correspondence.

THE HYPODERMIC INJECTION OF QUININE.

To the Editor of The Medical Record.

Sir:—If you deem the enclosed letter of sufficient importance, will you please give it a corner in your valuable journal. It is of importance from the minuteness of the dose employed; nine grains in two weeks for inveterate cases. This is the average success in seven cases. In the beginning of the epidemic of malarious fever, which has prevailed in this locality for the past few years, as well as in your city, and through the Eastern States generally, wherever the unprecedented drought has obtained, I found these, and occasionally even smaller doses, effectual, and sometimes one single dose, though the patients remained in the same locality; but as the epidemic has dragged on, and the vitality of the people has, I presume, become impaired by its repeated attacks, larger and larger doses, by hypodermic use as well as by the mouth, have become requisite. But owing to the more frequent occurrence of gastric irritability from the same cause, the not unfrequent absolute necessity for a resort to the former method has presented itself. In estimating the value of Dr. Miller's report, we must not forget that his patients had removed to a more healthy neighborhood.

In *ordinary* seasons of malaria, and in ordinary or sporadic attacks, I am confident that these, and even smaller doses, would be generally successful.

Yours truly,
Fred. D. Lente.

The following is the letter to which reference has been made:

Moberly, Missouri, March 2, 1875.

Dr. F. Lente.—Dear Sir:—During the month of February, 1873, several families came to this place from a section of country in an adjoining county known as the Three Forks of Chariton river, and notorious for its excessive malarial influences. Almost all of them had been suffering from chills for the past eighteen months. I will detail to you the history of one cases, which will be a proximate average of the remaining seven.

On the 3d of March, 1873, H. A. presented himself at my office, his entire appearance indicating a high degree of malarial toxæmia. He remarked that he had been "chilling" for the past eighteen months, and had taken a great deal of quinine, and inquired if I thought I could cure him without giving him any quinine. Anxious to try the hypodermic treatment by quinine, according to the formula which you had the kindness to send me, I remarked to him that I thought I could cure him without giving him anything, and would only insert a little medicine in his arm. I inserted *three grains*, about half a drachm, of your solution, and he went off with his team, hauling dirt on the M. K. & T. R. R. On the Saturday following he returned to my office, looking better; no chill, and much elated at the success of the novel little operation for curing the chills. I then made another insertion, and a week after a third insertion, of three grains each. Had no chills after the first insertion, although he was exposed to all the variable weather incident to the month of March in this latitude. I saw him occasionally during April and May, but no return of chills. Since then I never treat chronic chills in any other way, and I feel much indebted to you.

Yours truly,
J. H. Miller, M.D.

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THE VALUE OF SPECTRAL ANALYSIS.

To the Editor of The Medical Record.

My dear Sir:—When I wrote my reply to Dr. H. G. Piffard, in The Medical Record, January 30, 1875, answering all questions in conformity with strict scientific rules, I expected that this would end the controversy. But Dr. P. having sought the aid of Dr. Draper in attempting to confute some of my statements, I am compelled again to defend my position.

In looking carefully over Dr. Draper's letter, I am pleased to find that it contains not one word calculated to weaken any of the points originally advanced by me in the lecture before the Medico-Legal Society. On the contrary, I observe in it a masterly protest against Dr. Piffard's peculiar manner of criticism.

In answer to an inquiry, whether his map contains any sunlines at the red end of the spectrum, Dr Draper says: that said map does not contain any such lines at that part of the spectrum; that he has photographed lines from H to O at the ultra violet portion of the spectrum, *but has since succeeded in photographing the ultra red rays also*, but these latter photographs he has not yet published.

In The Record of Oct. 15, 1874, will be found all that I have said upon this subject. It contains two distinct propositions, and reads thus:

1. "Professor Draper of this city, whose merits in this direction are gratefully acknowledged, has given us a map containing a great number of sunlines, invisible under ordinary circumstances, but which can be made visible under certain favorable conditions.

2. "These additional lines are made *evident* (not evidently as Dr. P. has it) at both the red and violet part of the spectrum, making it of course longer than usual."

And now can any one point out to me the word or sentence in the foregoing quotation, in which I asserted that Dr. Draper has photographed lines at the ultra red part of the spectrum!

That Dr. H. Draper has given us a map containing a great number of sunlines invisible under ordinary circumstances, is a fact gratefully acknowledged all the world over; and although not personally known to Dr. Draper, I was pleased to call up his rare merits in this connection as a meritorious American investigator. But Dr. Draper's map was not the only one known to me, when I wrote my lecture "On the Importance of the Spectroscope in Forensic Cases." I had also before me the beautiful map of Stokes, resulting from his researches on fluorescence, and published in Roscoe's work on Spectrum Analysis, 2d edition, p. 205. Said map gives the ultra violet rays as far as N.

That, secondly, these additional lines (invisible under ordinary circumstances) are made evident at both the red and violet part of the spectrum, is a well-known fact, which Dr. Piffard will probably not undertake to controvert. It is certainly gratifying to learn that Dr. Draper has succeeded in photographing the lines of the visible spectrum from b downward, and that the picture comprises not only the regions including E, D, C, B a, and A, but *also the ultra red rays*. (Draper's letter, Feb. 20, p. 133.)

Independent of this statement of Dr. Draper, Roscoe makes mention of these invisible heating or red rays (see p.205), and in Schellen's work, p. 251, you will find Brewster and Gladstone's map of the so-called atmospheric lines, giving lines in the ultra red marked Y, Z.

My original statement needs therefore no modification whatever.

I will now show that Dr. Piffard has receded from his original position. In his first communication (Medical Record, Nov. 16, p. 605), he says:—"A similar error is committed in reference to Dr. Draper who (quoting from my lecture), has given us a map containing a great number of sunlines invisible under ordinary circumstances; these additional lines are *made evident* ("not *evidently!!!*") at both the red and violet part of the spectrum." "The fact is," Dr. P. continues, "Dr. Draper's photograph shows no lines in red, orange, yellow, or green, *for reasons known to every photographer and physicist*." (I italicize the sentence.) Now, mark Dr. Piffard's discomfiture. Dr. Draper says in his letter, "*I have since succeeded in photographing the lines of the visible spectrum, from* b *downwards, and the picture comprises not only the* regions including E, D, C a, and A, but also *the ultra red rays!*"

The reader will remember that these lines occupy the red, orange, yellow, and green regions of the spectrum.

It is interesting to observe how this plain statement of Dr. Draper demolishes Dr. Piffard's theory, "that no lines in red, orange, yellow, or green can be photographed, for reasons known to every photographer and physicist."

It is amusing in this connection, and in the face of the facts above stated, to refer to Dr. Piffard's sinister insinuation that I did not know when looking at Dr. Draper's map which end of the spectrum was represented.

Dr. Piffard states that I misquote him in paragraph nine of my reply. As I have not numbered my paragraphs, I presume he has reference to his luminiferous ether light and heat theory. I most positively deny the charge. I have quoted him verbatim, with the exception of his uncalled for remarks.

I come now to the question whether my view is correct or not, that the hæmatocryst. of the blood possesses great stability, that it will retain its characteristic optical relation for years, and that no putrefactive process can annihilate its integrity. Dr. P. has a perfect right to differ, and, if he can, let him prove the opposite view he holds, that hæmatocryst. (not the artificial crystals) is so unstable that even common atmospheric influences will affect its integrity.

Dr. Piffard has quoted a few authorities, firstly "Foumouze," a French scientist, who says: "Hæmatocryst. is characterized *chemically* (chemiquement) by its extreme unstability."

The fact that hæmatocrystalline is readily altered by chemical means is distinctly, clearly, and freely set forth in that very lecture before the Medico-Legal Society, October 15, see p. 532, second column. Let us quote a few lines: "When blood or hæmatocrystalline solution is acted upon by any acid, except prussic acid, or by some alkali, chloroform, and some other agents, it is split up, or *chemolized*, as we term it, into albuminous substances, and a coloring matter, which contains all the iron that is contained in the blood, but none of the sulphur of the original compound." I have also given a diagram or map of quite a number of spectra corresponding to the various *chemical* changes of the blood. Foumouze, therefore, does not help the Doctor. He quotes also Dr. W. Preyer, in the German language. This quotation may look formidable to those who do not understand the German language, and so I will translate it for their benefit. "Very peculiar are the changes of the hæmatocrystalline *spec-*

trum whenever a decomposition of *the solution* takes place. If the pure solution is allowed to stand several hours at the temperature of the room, the color grows darker," and so forth.

Dr. Preyer speaks here of solutions of artificial hæmatocrystalline, and not of blood-solutions. The whole of Chapter VI. treats of these artificial crystals, of their pellucidity, their power to refract light, their lustre, their color, and their spectrum. These artificial crystals are entirely foreign to our polemic, and can be introduced by the critic with no other result than to befog the question at issue. Consequently the "German quotation will not help him."

Dr. P. quotes from my "Archiv" paper, in which I spoke of a band in red, which we find in old blood, and which was thought by Hoppe Seyler to belong to a substance named methæmoglobin. But in said paper I showed also that this substance has never been demonstrated, *i.e.*, obtained, and that it is hypothetical entirely. *The spontaneous* transmutation spoken of by Hoppe Seyler results, as Kuehne has lucidly shown, from the chemical action of butyric and formic acids, which are generated in small quantities during the decomposition of blood. (Archiv, No. 5, p. 455.) Preyer says: "Die Blutcrystalle," p. 196. "The term methæmoglobin may be considered a superfluous designation," and Hoppe Seyler himself has materially modified his hypothesis. (See Medicinische Chemische Untersuchungen, Berlin, 1871, p. 378.)

The intelligent reader will concede that this is very weak argument against the positive results of intelligent experiments, and against the direct and positive authorities quoted in my first reply (see p. 85). These experiments show that after years of exposure in the dry state, as solution in air-tight vessels, as well as in vessels to which the air had access, the characteristic bands of hæmatocryst. could be produced in all their former integrity; that from them we could produce Stoke's reduction band, and by shaking up with air reproduce the two bands between D and E.

There is no doubt a part of the hæmatocryst. is used up by the chemical action of butyric and formic acids as Kuehne has shown; another quantity may be chemolized by sulphuretted hydrogen and other gases of putrefaction; but when these chemical agents are no longer active, the remaining hæmatocrystalline *knows no spontaneous decomposition*, it remains intact for years, and will reveal its presence spectroscopically by giving the characteristic bands between D and E with great intensity. It may do Dr. P. no harm to acknowledge that the argument is unanswerable.

In Dr. P.'s first communication, Nov. 16, p. 605, he said, "That crystals of hæmatocrystalline can only be obtained from fresh, and not from dried blood." I asked him, in my reply, to point out any authority, or whether he had made the necessary experiments to justify him in saying that it cannot thus be obtained. To this he answers (RECORD, Feb. 20, p. 134), "Dr. Waterman intimates that I denied the production of any (sic) crystals from old blood. I have frequently obtained crystals of hæmin from old dried blood." Dr. P., I am sorry to say, evades the question; he positively asserted that crystals of hæmatocrystalline cannot be obtained from old dried blood. *That is what I challenged him to prove.* He says hæmatin has never been crystallized, and quotes Preyer. On page 5, "die Blutcrystalle," Preyer speaks distinctly of "Lehman's hæmatin im crystallized condition;" "Lehman's Hæmatin ine krystallisirten Zustande;" and in Otto Funk's "Atlas der physiologischen Chemie," Tafel IX., Dr. Piffard may find a beautiful colored plate, representing the crystallized hæmatin as described by Lehman. On this question I am uncommitted. But when Dr. P. says I made an incorrect quotation from Mr. Preyer, I must deny the charge.

I claim my quotation is exact, true, and *not* incorrect. Here it is, p. 5.

"Blutcrystalle hingegen heissen auch das Teichman'sche Hæmin und das damit indentische *Lehman'sche Hæmatin im crystallisirten Zustande.*"

Blood-crystals we call also Teichman Hæmin, and *Lehman's hæmatin in crystallized condition*, identical with it. Preyer closes the chapter by saying: Diese farbigen Körper sind jedoch sämmtlich Zersetzungsproducte der Hæmoglobine für welche der Ausdruck *Blutcrystalle* schlechtweg vorbehalten bleibt.

"These colored bodies are, all of them, products of decomposition of the hæmoglobins, for which the term *Blood-crystals* is retained under all circumstances (schlechtweg is untranslatable)." In closing up I remind Dr. P. that Teichman himself, according to Virchow (see Cellular Pathology, p. 178), has quite recently begun to entertain doubts as to whether his hæmin is not really a sort of hæmatine, and that *the same Virchow* speaks of my labors "as a concise and pretty perfect review of the results of spectral analysis in physiology and pathology." (Jahresbericht über die Leistungen der gesammten Medizin, Berlin, 1871, p. 195, edited by Drs. Rudolph, Virchow, and Hirsch.

In conclusion, when Dr. Piffard says "That Dr. Waterman had not at any previous point in his lecture made mention of other crystals than those of hæmatocryst," he ignores the great and towering fact, that ample consideration was given to these other crystals in a subsequent part of the same lecture, p. 532, to hæmatine and cruentine under all their chemical changes, and a plain and distinct statement was made, that through them detection of crime was possible, spectroscopically, when all other means failed, p. 533. There is no loophole here, and Dr. Piffard's critique, resting upon such treacherous bottom, is destined to crumble and disappear from the sight of scientific men.

Very respectfully,

S. WATERMAN, M.D.

* * *

BOIL PEST IN TRIPOLI.—During the early part of last year a rare and malignant disease made its appearance in Tripoli, characterized by the formation of two or three boils in the axilla, or upon the arms, legs, or abdomen. Of ten instances of the affection, observed by Dr. Reval, seven terminated fatally within twenty-four hours. It was regarded as a significant feature that the disorder was limited to the tribe of Merdji, the inhabitants of the surrounding districts enjoying an immunity from the malady, although they maintained uninterrupted communication with this tribe. The authorities at Constantinople appointed a commission to inquire into the causes of this epidemic, and this commission, of which the American Consul, Mr. Temen, was president, have recently made an exhaustive report. In accordance with this report the epidemic in question had its origin in miasmata proceeding from a burial-ground in Merdji, where it is the custom to inter the dead in shallow graves scooped out of the sand, the corpse being simply covered with straw. When it rains these graves are filled with water, which, upon the following day, is rapidly evaporated by the hot sun, and this contributes to the rapid decomposition of the bodies, by means of which the surrounding atmosphere is loaded with the putrid emanations. In winter the graveyard is converted into a small lake, the water from which is used for drinking purposes.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from March 7th to March 13th, 1875.

O'Reilly, R. M., Ass't Surgeon.—Granted leave of absence for twenty days. S. O. 28, Dept. of the Platte, March 5, 1875.

Munn, C. E., Ass't Surgeon.—To report in person to the President of the Army Medical Board, New York City, for examination for promotion, and upon its completion return to his proper station. S. O. 39, A. G. O., March 8, 1875.

Medical Items and News.

N. Y. Academy of Medicine—Dr. Delafield.—At a stated meeting, held on the 4th inst., the following resolutions were unanimously adopted:

Whereas, On the 13th of February, 1875, Edward Delafield, M.D., an original Fellow of this Academy, departed this life, at the advanced age of 81 years; therefore,

Resolved, That the Academy would put on record its high appreciation of the great services rendered by him to the Medical Profession during his long career, by his wise councils, his successful discharge of many important trusts committed to him, and above all, by the consistent example of his daily life, his career as a teacher, his wise administration of the affairs of a great educational institution, and his regard for the suffering, as evinced by his establishment of the "Society for the Relief of Widows and Orphans of Medical Men," and as chief executive officer of the "Roosevelt Hospital," all bear witness to his high intelligence no less than to the benevolence of his heart; while his honorable conduct, his humane and sympathetic deportment, ennobled the profession of which he was so honored a member. He has thus left us an example worthy of all imitation.

Resolved, That these proceedings, duly certified, be communicated to the family of the deceased, and that they be published in The Medical Record and *N. Y. Journal of Medicine.*

Signed,
John G. Adams, M.D.,
Willard Parker, M.D.,
Thomas M. Markoe, M.D., } *Committee.*

March 4th, 1875.

Another Change in the Medical Board of Bellevue Hospital.—On the 11th inst. the Board of Commissioners of Charities and Correction restored to the Medical Board of Bellevue Hospital the physicians and surgeons who lost their positions by the action of the former Board of Commissioners, in the summer of 1874. The following resolutions were adopted:

Resolved, That the Medical Board of Bellevue Hospital shall on the 15th day of March, 1875, be organized in the manner following, and thereafter the Board, as at present constituted, shall cease to exist.

Second. That the Medical Board be increased to twenty-four members.

Third. That on the 15th day of March, 1875, the following named physicians and surgeons shall constitute the Medical Board of Bellevue Hospital: Drs. Alonzo Clark, James R. Wood, John J. Crane, Isaac E. Taylor, Austin Flint, Fordyce Barker, Alfred L. Loomis, Thomas M. Markoe, Lewis A. Sayre, William T. Lusk, Stephen Smith, Alexander B. Mott, Henry B. Sands, John W. S. Gouley, Frank H. Hamilton, Edward G. Janeway, Francis Delafield, William H. Thompson, Charles A. Budd, Gouverneur M. Smith, Erskine Mason, William M. Polk, Ernest Krackowizer and Abraham Jacobi.

Fourth, That there be a department for the diseases of women.

Fifth. That there be a department of orthopædic surgery and diseases of children.

Sixth. The Board to be divided as follows: Ten physicians, two of whom, hereinafter named, to be appointed to the department of diseases of women, and ten surgeons; also two for orthopædic surgery and diseases of children, and two for the department of maternity.

Seventh. The Medical Board shall be divided as follows: Physicians—Drs. Alonzo Clark, Alfred L. Loomis, Austin Flint, Edward G. Janeway, William M. Polk, Abraham Jacobi, William T. Lusk, Charles A. Budd, Francis Delafield, William H. Thompson. Surgeons—Drs. James R. Wood, John J. Crane, Stephen Smith, John W. S. Gouley, Frank H. Hamilton, Alexander B. Mott, Henry B. Sands, Thomas M. Markoe, Ernest Krackowizer, Erskine Mason.

Department of Diseases of Women: Dr. William T. Lusk, Dr. Charles A. Budd. Department of Orthopædic Surgery and Diseases of Children: Dr. Lewis A. Sayre, Dr. Gouverneur M. Smith. Obstretrical Department of Maternity: Dr. Isaac E. Taylor, Dr. Fordyce Barker.

Eighth. That the Medical Board nominate to the Commissioners of Public Charities and Correction physicians and surgeons to fill vacancies.

Ninth. That the resolution passed November 23, 1866, limiting the term of service of the Medical Board to fifteen years be and hereby is rescinded.

Tenth. That the resolution passed July 28, 1874, making the service of members of the Board continuous through the year be and is hereby rescinded.

Eleventh. That the attending physician and surgeons shall serve twice each year, and each service shall continue for two months.

Twelfth. That the Medical Board shall, at their first meeting, divide themselves into three classes—eight members to serve three years, eight members to serve five years, and eight members to serve seven years—the classification to be determined by lot.

Thirteenth. That the rules and regulations of the hospital not inconsistent with the foregoing be continued in force.

Collecting Association.—The physicians of Jackson County, Michigan, have associated themselves together in an organization, to be known as the "Jackson City and County Physicians' Collecting Association," and have adopted the following preamble and articles of agreement:

Art. 1st. We will, at the expiration of every month, deliver all our unsettled accounts into the hands of such persons as we shall hereafter appoint (one or more in each town), and authorize said persons to collect and settle the same.

Art. 2d. We will require our collectors to report to the association the names of all persons who refuse to pay or settle their accounts satisfactorily.

Art. 3d. The names of all such persons shall be furnished to every member of the association, and every member shall be prohibited from rendering them professional services, until they shall have satisfactorily settled all past accounts.

Art. 4th. The collectors may, upon instructions from any member of the association, remit a portion or all of his claim against those who, while willing, are too poor to make payment in full.

Art. 5th. This association shall require the persons employed as collectors to furnish sufficient bonds for the honest discharge of their duties, and to report weekly to all who have accounts in their hands.

The Ninety-Second Annual Catalogue of the Harvard Medical School shows very gratifying results from the change in the system of teaching. The number of students appear to be steadily increasing, and the classes now number as follows: Graduates, 6; third class, 29; second class, 52; first class, 108. As an example of the favor with which the school is considered by its students, it may be mentioned that the names of but four members of the second class of last year fail to appear in the third class of the present year. The degree of preliminary education attained by the scholars is shown by the fact that eighty of the 192 had received college degrees. A recapitulation by States shows that by far the majority of the students are Massachusetts men, viz., 134, and of these seventy-two are from Boston and Cambridge. Only three are from New York State—two from Brooklyn and one from Geneva. Other States and countries are represented in the following proportions:

Maine, 8; New Hampshire, 6; Vermont, 2; Rhode Island, 10; Connecticut, 4; New Jersey, 1; Maryland, 1; Pennsylvania, 3; Ohio, 2; Illinois, 1; Minnesota, 1; New Brunswick, 4; Nova Scotia, 6; Cuba, 1; Barbadoes, 1; Brazil, 1; Buenos Ayres, 1; and Japan, 1.

Small-Pox and Vaccination in China.—The late emperor of China died, it is stated, after eleven days' illness, from an attack of small-pox, which disease is very prevalent in Peking. The help of foreign medical men had been persistently refused, and the emperor was attended only by his chief physician, Nona Tzen.

Galignani, speaking of the death of the emperor says that it might be inferred that vaccination is not practised in the Celestial Empire. This, however, is not the case. The virtues of the cow-pox were known to them many years before Jenner discovered it in our part of the world. Their historians fix it at about the twelfth century of our era. Now, as we got the small-pox from the Arabs toward the end of the tenth century, when Rhazes first described it, the question arises as to whether that disease existed in China before. A physician of that country, who has written an extensive work on medicine, says on this subject that small-pox was unknown until the middle of the reign of the Cheou dynasty, which flourished about the sixth century before Christ, and that it was only toward the end of the Song dynasty, answering to our twelfth century, that inoculation was practised on young children as a means of protection from the spontaneous malady. The experiment was first tried on the Emperor's grandson, and succeeded perfectly, and for more than fifty years the reputation of this treatment grew in the minds of the people, but it became gradually apparent that the remedy was not infallible, especially when the disease assumed an epidemic character. As for the cow-pox, the missionaries at Peking sent over accounts of it as early as 1779, while Jenner only published his discovery in 1799. The way in which the Chinese inoculate the cow-pox is this: the dry virus, in a pulverulent state, is blown through a silver tube into the left nostril, if the patient be a girl, and into the right one in the case of a boy. A second and more modern method consists in dissolving the dry virus in four or five drops of clear water; this is then taken up in a little cotton which they thrust into the right or left nostril, according to the sex, as above stated. The third way consists in performing the same operation with fresh virus, which is taken on the spot from a healthy child.

School for Idiots.—The Legislature of Illinois has appropriated $185,000 towards a school for feeble-minded children, to be located either in Jacksonville or Quincy.

A Medical College in Asiatic Turkey.—Rev. T. C. Trowbridge, formerly of Michigan, and now a missionary in Turkey, purposes establishing a College at Aintab, a city some sixty miles north-east from the Mediterranean Sea, the most important feature of which is to be a medical school.

The Rush Medical College at its last commencement graduated seventy-three students.

The Disturbances in the European Medical Schools seem to have reached their height in Barcelona, Spain, where the professor of physiology, Dr. Varela, was so interrupted and insulted during his lecture that he drew a revolver and threatened the disturbers. The most intense excitement followed, and it was necessary to call in the aid of the police to enable the professor to escape the fury of the students.

A School of Dentistry has just been established in Vienna.

M. Pajot, the well-known Professor of Obstetrics of the Faculty of Medicine of Paris, having expressed his intention to retire from the faculty, a petition signed by six hundred and sixty-three students, including a considerable number of *internes* of the hospitals, was addressed to him asking that he might reconsider his determination and continue his course. The desire has been so unanimous that M. Pajot has consented.

There is no necessity for a Prison Reform Association when a twenty-five cent box of salve is advertised as a complete cure for a felon.

Examination on Sanitation.—The Senate of the University of London is contemplating the institution of a special examination in the subjects which relate to public health; a course which has been recommended by a vote of Convocation.

Dr. Hingston, of Montreal, has been elected mayor of that city by over three thousand votes.

There is a Cyclops on exhibition in Paris—a man from Australia, with only one eye, and that in the middle of his forehead.

Practical Filtration of Air.—The air that is supplied to the Houses of Parliament passes through filters of cotton wool. After being used for a short time the filters become of a heavy, murky brown color, and thick with dust and organic impurites. The sieves through which the air is first passed have deposited near them a heap of intercepted particles.

The German Association of Naturalists and Physicians will have their next meeting on the 18th of Sept., at Gratz, the capital of Styria.

Weekly Bulletin of Meetings of Societies.

Monday, March 22.—Medical Society of the County of N. Y.

Tuesday, March 23.—American Microscopical Society; Yorkville Medical Association.

Wednesday, March 24.—N. Y. Pathological Society.

Thursday, March 25.—N. Y. Medico-Legal Society; Brooklyn Pathological Section; Jersey City Pathological Society.

Friday, March 26.—Medical Library and Journal Association, "Report on Obstetrics," by Dr. Matthew D. Mann.

Saturday, March 27.—N. Y. Medical and Surgical Society.

Original Communications.

INUNCTION.*

By W. R. FISHER, M.D.,

HOBOKEN, N. J.

THE use of oils and fats in medicine, either alone or in combination with other remedial agents, is of very ancient origin. The writings of the oldest medical authorities which have come down to us make reference to the practice of inunction, and not only was it in common use in Egypt, Greece, and Rome, but there is reason for believing that among many of the savage and semi-civilized tribes and nations it has been used for ages. The Greek and Roman physicians employed it as a means of treating disease, and it ultimately became a hygienic necessity among the people in the *régime* of the gymnasium and the gladiatorial contests, and as an important part of the bath.

At the present time, however, in Europe and America, inunction is confined within much stricter limits than was the case in times gone by. The oils and fats, when applied externally, are now used mainly as vehicles to convey a limited number of medicines to the skin or to the subjacent tissues, either as local remedies or to affect the system at large, and chiefly for the former purpose. Mercury, iodide of potassium, and iodine are the chief agents which are at present introduced into the system through the skin, by means of fatty matters, with the object of influencing nutritive changes in the economy, or, in other words, as alteratives. In the London *Lancet* for May 25, 1872, p. 709, Mr. John Marshall, F.R.S., recommends to the profession the use of solutions of oxide of mercury in oleic acid as topical applications for the treatment of all diseases in which this drug is indicated. In addition to the greater cleanliness of these preparations over the ordinary unguents, he claims that they "have a much greater diffusibility or penetrating power than the old mercurial ointments, for they are absorbed by the skin with remarkable facility, and manifest the remedial effects with great promptitude." Morphia, atropia, cantharidine, quinine, and croton oil have also been combined with oleic acid and introduced into the system through the skin with good effect. It is very probable that many other remedies will soon be added to the list. For the production of local effects upon the skin, or upon wounds or ulcers, we use unguents and cerates as astringents, sedatives, irritants, stimulants or parasiticides. So, too, belladonna, atropine, and aconite may be used by inunction to produce their specific effects upon the pupil of the eye, but in modern practice this method of application has given place to others, which are much cleaner, surer, and more easily regulated.

The uses of unguents and cerates, together with their composition and effects, are so well known and so fully described in our books that it is useless to enlarge upon them here. The purpose of this paper is to direct the attention of the Society to the use of the oils and fats in a manner quite different from that which has just been briefly referred to; to point out how these may be used in medicine without the admixture of other medicinal agents; to go back to the practice of antiquity and bring forward a good thing of the past which has been hurried over and well nigh forgotten in the rapid march of progress. The neglect which has fallen upon the old method of inunction, which once constituted the main reliance of a school of physicians (the Iatraleptics), is surprising in view of its great virtues as a means of treatment in a variety of diseases. Scarcely a reference to its use is to be found in the works of modern authors who treat of the materia medica. Our Dispensatory does not refer to it; Waring and Stillé say but little of it, and Sydney Ringer by no means gives it a sufficiently prominent mention.

The fats and oils play a very important part in the nutrition of the body and in the evolution of force for the exercise of function by the various organs and tissues. They are as essential to life as air or water. It is now held by many physiologists that it is the combustion of the fatty elements, and not that of the nitrogenous, which originates force in the human body; the nitrogenous substances holding a secondary position to change this force into its expression as nerve-force, muscle-force, liver-force, and the like. It therefore becomes a matter of great value to the physician to have as many ways as possible of introducing this element of food into the body, for although the stomach is the readiest recipient, yet sometimes it refuses to do its work, in spite of all the attempts of the apothecary to prepare the dose in an agreeable form; sometimes, too, the remedy, when given by the stomach, does not produce the effects which we may otherwise attain. In either event the skin offers us its immense surface as an absorbent, and we can there apply our oils and fats by inunction.

Inunction consists in smearing the surface of the body, either partially or entirely, with oil, lard, or suet. The oil may be either of vegetable or of animal origin, but the former is much to be preferred, because the decomposition which takes place upon the skin, when animal oils are used for a length of time, gives rise to such a stench that the patient becomes disgusting to himself and to every one around him. When cod-liver oil was introduced into practice, it was used by inunction to a considerable extent, but this was soon abandoned on account of its disagreeable odor. There is no reason why the animal oils and fats should be used externally. Their internal use is determined in great measure by the fact that they are more readily tolerated by the stomach than the oils of vegetable origin, and that consequently they can be given in larger quantities and for a longer time. The vegetable oils, however, are taken up quite as readily by the skin, and therefore they are to be preferred. It is true that they are not absolutely free from odor when thus employed, but there is not sufficient to render them seriously objectionable, and, when a patient has unusually acute olfactories, the addition of a perfume will remove all difficulty on the score of smell. For general use pure olive oil is the best of the vegetable oils. It is comparatively cheap, it is readily absorbed by the skin, and it gives rise to very little unpleasant odor.

When a general inunction is to be made, it is advisable to precede it by a warm bath, whenever the condition of the patient will admit of this preliminary, for the action of the oleaginous material is decidedly promoted by it. After the bath the patient should be clothed in a loose flannel wrapper, which should be long enough to cover the feet, in order to protect the sheets. The oil, slightly warmed, should then be applied liberally over the whole body and limbs by means of the bare hand of an attendant. The first effect that is noticeable after such an application is a general sense of comfort on the part of the patient;

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* Read before the District Medical Society for the County of Hudson, February 2d, 1875.

when nervous irritation is a symptom, it is observed to diminish to a greater or less extent. Soon a gentle perspiration shows itself upon the whole body, and sometimes a slight erythematous eruption is apparent for a short time. It is probable that the sedative effect upon the nervous system is due in great measure to the gentle friction of the skin, and not directly to the oil itself. The secondary effects of general inunction are shown by increased glandular action and by marked improvement in nutrition and growth, in cases which are suitable for its application. Before passing to the consideration of these secondary effects, it may be well to refer to the local effects and uses of inunction in *diseases of the skin.* Oil is applied locally to protect the skin from irritating discharges and acrid secretions. In scaly diseases, as psoriasis and xeroderma, it is used to soften the skin that is hardened by disease and liable to crack. In impetigo, eczema, and favus it is useful to soften the scabs and facilitate their removal. In ringworm of the scalp, oil affords a good protection to the unaffected hairs and prevents the spread of the disease. Inunction with lard has been used with success in scabies by Professor Bennet, and he goes so far as to claim that the usual treatment by sulphur ointment is efficacious solely on account of the oleaginous matter, and that the sulphur might as well be left out. In erysipelas Erasmus Wilson recommends inunction with lard in preference to all wet applications. He first relaxes the skin with steam or hot water, then saturates it with hot lard, and covers it entirely with wool.

It has been claimed, especially by some French writers, that olive oil, when applied locally and to the body generally, acts as a protection against the bites of venomous reptiles and insects, and some reports seem to support this view; but the number of observations has thus far been altogether too few to substantiate such a claim for its use.

Next in order come *fevers*,—a class of diseases in which inunction is used both for its local as well as its general effects. In the exanthematous fevers it is used to a considerable extent. Schneeman, of Hamburg, has the credit of reinstating this method of treatment, for his reports on the use of inunctions of lard in scarlet fever made the practice quite common at one time in Europe and in this country, so far as that disease was concerned. Mautner, of Vienna, preferred the use of suet in scarlet fever, and West, in his work on the diseases of children, says that he regards it as far more efficacious in relieving the burning heat of skin than sponging the surface of the body with tepid water. He does not think that it prevents desquamation nor the appearance of albuminous urine, but he regards it as lessening the amount of the former and as diminishing the risk of the latter assuming a serious character. Inunction also helps to limit contagion by preventing the poisonous scales, during the process of desquamation, from being carried about by the air. The applications in the exanthemata should be made twice or thrice daily. Olive oil can be substituted for the lard or suet, and, to my thinking, is to be preferred to either. In small-pox the application of oil has been recommended to prevent pitting. Whatever influence it may exert in this direction is probably due to the softening of the scabs, which the oil promotes, and in this way serves to prevent the continuance of the ulcerative process after the pustules rupture and dry down. When the scabs are allowed to become dry and hard, the destruction of the skin is much greater than when they are softened by external applications and are taken off. In the earlier stages of small-pox, inunction serves a useful purpose in allaying the extreme itching and irritation of the skin, and in soothing the nervous irritability which is thus excited. In typhus and typhoid fevers inunction is of use as a means of introducing a form of nourishment into the body, which often, on account of the condition of the digestive apparatus, cannot be administered by the mouth.

Inman (Restoration of Health, 2d edit., p. 230) says that during epidemics of the plague in Eastern cities the dealers in oil were observed to escape the disease, and that this has led to the common practice there of using inunctions of oil as a prophylactic. In Malta, those who had the care of the sick and dead during an epidemic of the plague wore dresses which were saturated with a solution of wax and oil, leaving the face alone exposed, and all who were so protected escaped infection. On the other hand, Stillé (2d edit., vol. 2, p. 410) states that he has been able to find very little ground for this popular Eastern belief, and that he puts no faith in the use of oil as a prophylactic against the plague.

Diseases of the Alimentary Canal.—In all acute and chronic inflammatory diseases, as well as in the functional disorders of the stomach and bowels in children, the use of oil by inunction is of great value. As an instance of its striking effects in an extreme case of cholera infantum, resulting from improper feeding, I will cite the following case, which occurred in the practice of Dr. Lewis Fisher, of New York, about four years ago. The doctor was summoned to a town near New York to see a child of four months of age, who was reported to be in a dying condition. He was sent for more to satisfy the mind of its mother, who had formerly been a patient of his, than with any expectation on the part of the rest of the family that his visit could result in any benefit to the child. The physician who had had charge of the case—a gentleman of excellent standing and large practice—had given it up, after a careful and conscientious treatment *secundum artem*, telling the parents that nothing more could be done, and that death must follow in the course of a few hours. Doctor Fisher found the child in the condition of collapse which the last stage of cholera infantum presents. He could suggest nothing in the way of medication that had not already been tried without avail; but he had read, a short time before, a paper, in the London *Lancet*, by Dr. Knaggs, on "Anointing in Infantile Disorders," and, as a last resort, he resolved to try what oiling would do in this instance. He directed the mother to wrap the baby in flannel, and to oil it from head to foot with warm sweet oil every hour, and came away, expecting to hear on the next morning that the child was dead. But on the next morning the child was better. The oiling had been faithfully kept up, and the child had steadily improved. After each application it seemed to be more and more soothed and strengthened; the vomiting ceased, the passages from the bowels improved in color and consistency, and diminished in number. This child recovered entirely, and is now alive and well, owing its life, without doubt, to the use of oil by inunction; at least this is the opinion which Doctor Fisher and the parents of the child adhere to, but the family physician, with true conservatism, complacently took all the credit of the recovery to himself, and attributed the cure to the medicine which he had prescribed, and some of which, he claimed, was within the child's belly when the oiling was commenced. Such a happy result as this, of course, cannot be expected in extreme cases of this serious malady; but a single example may serve as an encouragement to us to try this simple remedy, even in cases which are apparently hopeless. I have never seen a case of acute or chronic diarrhœa in children, in which inunction has been properly used (and I have prescribed it a considerable number of times in such instances), without more or less resulting benefit. Sometimes it is difficult to induce the parents to use the remedy, for it involves a good deal of trouble, and, being new to them, it does not always invite their confidence; sometimes, too, they will not use it according to directions, because they are afraid of annoying the little sufferer. But, when you can induce them to give it a fair trial, they will usually persist in the applications, for they soon see for themselves that the child is soothed by them, the evacuations are checked and modified, sleep is induced, and the general comfort of the patient is greatly promoted. Even in cases which have terminated fatally, I have more than once had parents express to me their thanks for suggesting this remedy, which has acted so decidedly to relieve the sufferings of their children.

A child was born in May of the past year in a weak and puny condition, after a prolonged labor, which required the aid of the forceps to complete it. The mother was extremely anxious to nurse her baby, and persisted in the attempt after it was plainly evident to those around her that she was quite inadequate to the task. Three weeks elapsed before she consented to have a wet nurse for her child. By this time he was so feeble that she was seriously alarmed for his life. A wet nurse was immediately procured, and then another, and another, before a suitable one was found; but, in the meantime, the child was attacked with sprue and strophulus, and the bowels gave additional evidence, in their green and slimy passages, of the serious intestinal disturbance which was going on. In the hands of the last wet nurse there was considerable gain, and, hoping that change of air might push forward the improvement more rapidly, I directed the family to try the effect of a trip to the Catskill Mountains. This was done in August, but without much benefit; for, upon their return, after an absence of three weeks, the same intestinal derangement existed, and there was the additional indication of depraved nutrition in a crop of impetigo of the scalp. Once more the wet nurse was changed, and with decided benefit to the child. The supply of milk was now more plentiful and nutritious than ever before, and his general condition showed immediate signs of improvement, but still there were daily four or five greenish discharges from the bowels, containing undigested milk. Internal treatment did not seem to correct this permanently, and I resolved to make a trial of inunction. The applications of oil were directed to be made every night. Within forty-eight hours there was a diminution of the number of passages to two, instead of four or five, as had been usual for many weeks, and the color was better. Within a week the passages were normal in frequency, color, and consistency, and ever since the child has been well. The inunctions were kept up nightly for a month, and were then gradually discontinued.

These two examples have been given somewhat at length, for the purpose of illustrating the manner in which inunction may be used to relieve the two extremes of intestinal disorder which we meet with in children. The frequency of the applications varies from once an hour to once a day, according to the severity of the case, and the indications which we hope to meet by employing them. In true marasmus, and in that common form of atrophy from malnutrition which is frequently called marasmus, in rickets, and, briefly, in all conditions which are associated with diarrhœa in children, we may find in inunction a sure and valuable remedy. I have had no experience with this method of treatment in similar conditions in adults; but on *à priori* grounds I should anticipate similar results, and in chronic dysentery or diarrhœa I should confidently look for decided relief, if not for cure, from its employment.

Diseases of the Respiratory Organs.—In acute inflammations of the lungs, pleural and bronchial tubes in children, I have several times seen most excellent effects follow from the use of inunctions. In the lobular pneumonia of children—the usual form in which pneumonia is met with in early life—there is no remedy with which I am acquainted that will so speedily induce sleep, relieve distress, and put a stop to the short moaning cry as warm sweet oil frequently applied to the whole body. This should be done two, three, or more times every day, varying with the urgency of the symptoms. Inunction is likewise of a great benefit oftentimes in chronic diseases of the lungs: phthisis, chronic pneumonia, bronchitis, and emphysema. In this connection the observations of Hirt, of Breslau, on the effects of oil fumes upon workmen are of great interest. His investigations show that the men who are employed in the reduction of the fat oils are singularly free from bronchial catarrh, and that those who enter the works with thoracic diseases and flat chests usually experience a great improvement in general health and vigor, and are no longer liable to suffer from sudden atmospheric changes. It is not unlikely that these beneficial effects are due in some measure to the absorption of oil by the skin, as well as to the inhalation of the fumes of oil, to which latter Hirt attributes all the favorable results. Inunction is sometimes effectual in controlling the night-sweats of phthisis. Its influence upon the general health in this disease is well illustrated by the following case, which Inman gives, in his colloquial style, in a chapter on oil rubbing: "I was called in consultation to see a young man, whose life to his family was very valuable. There was no doubt that he had consumption, and the sole cause of my opinion being asked was to decide whether it was better to stop in England to die, or go abroad on the chance of recovery. After many inquiries my decision was for a comfortable home until death arrived. The patient, who had twice wintered in Italy, took the same view. This being settled, the ordinary attendant said: 'Now, Doctor, is there anything which you can suggest for us to do in addition to what we are doing? Mr. —— is taking chalybeates, cod oil, which he digests easily, and as good food, etc., as he can manage. As you perceive, he pays due attention to warmth and ventilation; come, what more can you think of?' I suggested oil rubbing, and the observation, 'It shall be attended to,' was the last remark about the case which I heard for a long time. About three years after this the family surgeon stopped me in the street, and asked me if I could remember Mr. ——'s case? 'Yes,' was my reply, 'as distinctly as if it had occurred yesterday—how did it end?' 'Why, I met him at a ball last night, and he was the handsomest man in the room!'"

In conclusion it may be stated:

First. That the oils and fats are essential to growth and development.

Second. That inunction is a valuable method of introducing these nutritive materials into the body, to be used when the stomach will not tolerate the oils, or when we wish to produce special effects by this method of application.

Third. That the vegetable oils are more suitable than the animal oils and fats for purposes of inunction.

Fourth. That the oils and fats are chiefly useful in those diseases and derangements of the system in which wasting enters as an important factor. Hence we may expect that their employment by inunction will be specially beneficial in scrofula, constitutional syphilis, and rickets; in convalescence from acute diseases; in nervous affections; in many chronic diseases; and especially in the diseases of the chest and abdomen in children, to which reference has already been made.

Fifth. That children are more suitable subjects for inunction than adults, partly because their susceptibility to external influences is much more acute than that which is exhibited at later periods of life, and partly because the applications are more easily made upon them than upon adults.

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TWO NEW DIFFERENTIAL SIGNS IN DISLOCATIONS OF THE SHOULDER.

BEING A PORTION OF A CLINICAL LECTURE DELIVERED, AT BELLEVUE HOSPITAL, AFTER THE PRESENTATION OF A CASE OF SUBCORACOID DISLOCATION.

By Prof. FRANK H. HAMILTON, M.D.

The examples of errors of diagnosis in the case of injuries involving the shoulder-joint are very frequent. My personal experience furnishes me with probably forty or fifty cases in which the head of the humerus has been supposed to be dislocated when it was not; or in which it has been supposed to be broken when it was not. For this reason it is important that you be informed of every known means of diagnosis; and to those which are already known and published I will now add two more, of which you will be able pretty often to avail yourselves.

When the head of the humerus is in its socket it projects outwards, beyond the extremity of the acromion process, from half an inch to an inch; varying more or less according to the age and size of the person. It projects also in front of the acromion process a little, but not at all behind.

In case of a dislocation, in whatever direction the head of the humerus is displaced, there can be no bony projection outwards beyond the acromion process. This fact may be ascertained always, unless there is very great swelling of the soft parts over the point of the shoulder; but it will be necessary that you should be familiar with the natural outline of the acromion process, and this is a study which medical students and medical men too much neglect, namely, the study of the natural form of the surface of the body, or what I call "Superficial Anatomy," You must learn to know where is the outer end of the clavicle, where is the outer end of the acromion process, and where is the coracoid process, if you expect to determine the existence or absence of a dislocation of the shoulder. This exercise you can pursue in your bed-rooms, on your own persons or on the persons of others. With a camel's-hair pencil, moistened with the tincture of iodine, you can mark out upon the skin the line of the clavicle, acromion process, spine of the scapula, etc. In attempting this for the first time you will probably find that there is much to learn that you did not know before, however thoroughly you have studied the anatomy of the shoulder in the dissecting-room, when the skin is removed. The same applies to all the other joints of the body; and now you will understand why some men, perhaps wholly ignorant of anatomy as it is usually taught, but familiar by long practice with superficial anatomy, will recognize in a moment the nature of a joint injury, which you may fail after a very careful examination to detect.

Let us return to the consideration of the two special signs of shoulder-joint dislocation (liable to only one exception, as I shall hereafter explain), which I wish to add to those already given by surgical writers.

First. While the head of the humerus remains in its socket, if a rule be laid upon the outside of the arm from the shoulder to the elbow, it will not touch the acromion process, but will be distant from it at least half an inch, generally one inch or more. On the other hand, if the bone is removed from the socket, in whatever direction it may be displaced, whether forwards, downwards, or backwards, unless the shoulder is much swollen, the rule, placed in the manner above stated, will touch the acromion process.

Second. If, standing behind the patient (in case of the right shoulder) the thumb and forefinger of the left hand is made to grasp the top of the shoulder in such a manner as that the interdigital commissure shall rest upon the acromion process, just outside of the acromio-clavicular articulation; and if then the finger and thumb are dropped perpendicularly, the tip of the finger will (in case the head of the humerus is not dislocated) rest upon the centre of the round upper extremity of the humerus, as it projects in front of the acromion process, while the end of the thumb will rest upon the head of the humerus behind; but the head will be felt indistinctly by the thumb, for the reason that, instead of projecting as it does in front, it actually recedes a little beneath the acromion process. Up to this moment the surgeon may entertain some doubt whether he is actually grasping with his thumb and finger the head of the bone; but if he now moves the elbow of the injured limb forwards, so as to carry the head of the humerus backwards in its socket, he will feel it press strongly upon the thumb, and this will be conclusive. If a dislocation exists, the head of the bone cannot be felt in this situation, and by the thumb thus placed.

I have told you that both of these differential signs, in their application to shoulder-joint injuries, are liable to one exception. The phenomena would be the same, so far as these two signs are concerned, whether there was a dislocation of the head of the humerus, or a fracture with displacement of the neck of the scapula. The latter accident must, therefore, be first excluded by a careful application of the rules of diagnosis given in our treatises upon surgery; but that upon which you can most safely rely is the relative infrequency of the two accidents. It is doubtful, whether a long and active surgical practice will ever furnish you with an example of fracture of the neck of the scapula, while you will meet with a great many cases of dislocation of the shoulder.

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The Medical Department of the University of Vermont graduated nineteen students at its last commencement, out of a class of fifty-one. The prize offered by the Professor of Surgery for the best written report of the surgical cliniques for 1874 was awarded to Mr. J. N. Swett, of Fairfax, Vt., and honorable mention was made of the reports of A. J. Watson, and Lewis A. Arthur. The faculty have established a number of prizes, viz.: Faculty prize of $25 for the best Thesis; a prize of $50 for the best examination in Chemistry; a prize for the best Essay on Practical Medicine; for the best examination on Materia Medica and General Pathology, and the best written report of the lectures on Physiology.

OTITIS EXTERNA DIPHTHERITICA.

By P. A. CALLAN, M.D.,

ASSISTANT SURGEON NEW YORK EYE AND EAR INFIRMARY, NEW YORK.

A DIPHTHERITIC membrane in the external ear is a very rare complication, so rare that only one author on aural diseases, in about a dozen whom I have examined, mentions anything on the subject.

Mrs. B. M., æt. 26, mother of two children. Three weeks previous to present attack patient noticed a slight purulent discharge from both her ears. She merely syringed them out and let "nature run her course."

The discharge continued for about two weeks' time, then ceased; but severe pain began in both ears, for which she consulted a physician, who prescribed tr. opii for ears; her suffering grew worse, she lost her appetite and could not sleep; then she tried poultices, which made the pains much worse, at times excruciating. I was then sent for. I found patient very anæmic, dejected, quite feeble, with high pulse. Her reduced condition could in part be attributed to her nursing, up to a week previous, a very large and healthy 10½ months' child. Hearing distance, left ear, ½ inch: right, on pressure heard.

I found both ears stopped up with a whitish *membrane*, which extended out on the concha of each, and firmly adherent to the skin. In attempting to remove a small portion of the membrane from the skin, but little force was used; still the skin bled, and the patient experienced excessive pain, and it was difficult to thoroughly remove even a small portion, it was so firmly attached.

I prescribed tonics and anodynes internally, and touched the membrane in each ear once daily with a solution of argent. nit., 120 to the ounce of water, for four days, until I entirely removed the membrane in both ears; the touching was then omitted, and hydg. ox. nit., gr. xx. to ℥ of adeps, was smeared on a piece of lint, and applied twice daily. In eight days from beginning of treatment, the ears were perfectly cured. Hearing *normal*. The drums were intact and had not been involved in the disease; the membrane had only occupied the outer two-thirds of each ear.

Grüber, in his *Lehrbuch der Ohrenheilkunde*, says; that the diphtheritic membrane never makes its appearance at the beginning of an otitis externa; but such a disease having lasted sometime, either through the reduced condition of the patient, or injudicious treatment, or both, the discharges cease, then a diphtheritic membrane developes itself.

ANOTHER METHOD OF PERFORATING THE DRUM MEMBRANE.

By JOSEPH SIMROCK, M.D.,

NEW YORK.

IN a number of cases of chronic otitis catarrhalis media, with little or no opacity of the membrana tympani, where the Eustachian tube was pervious, and the ordinary methods of treatment had been tried unsuccessfully, I resorted, instead of puncturing the membrana tympani to a novel procedure of opening the tympanic cavity. This method consists in the application of sulphuric acid upon a selected spot of the surface of the membrana tympani, mostly on its posterior half. Such a proceeding at first sight appears hazardous, but in reality the action of this substance is wholly under control, the quantity requisite to produce a large opening being quite a minimal one. The way of applying it, is to bring the end of a fine probe, which has been covered with a thin layer of cotton and afterwards dipped into strong sulphuric acid, in contact with the surface of the membrane, either to a particular spot with a slight pressure, or by rubbing it over a larger field. In the first case an opening may be produced almost instantaneously; in the latter the fluid dries in, and, after a while, the part over which it has been spread, having become anæsthetic, may be removed by a probe like so much paper tissue. There is hardly any pain caused by the operation, and in a good many cases it might be done without the patient being aware of any operative proceeding taking place at all. The openings are of course of different size, according to the more or less limited application of the acid, but they are invariably of long persistence. It is seldom that an aperture by puncture, even of large size, does not close within two or three days. Of seventeen orifices produced by the above method, three remained open for four months; the longest time the opening took to close was twelve weeks, the shortest, thirty-one days. After closure it can be easily reopened by the same treatment, and by the result of several perforations in the same individuals, I am inclined to the belief, that by repeating the operation the regenerative power of the membrane is greatly diminished, perhaps entirely lost. In one patient the second perforation still persists in both ears since three and a half months; in another, twelve weeks; in a third, ten weeks, without visible inclination to close again. Only in three cases I have seen slight inflammation of middle and external ear follow the operation, without any disagreeable complication however. It is too soon to compare the results of this procedure with the results of puncture by the needle or of tenotomy of the tensor tympani, but I am of opinion that they will compare favorably with either. In seventeen cases the tinnitus disappeared in five; in nine it was so much diminished that patients were no longer troubled; three remained unimproved. The improvement for hearing, especially for conversation, was very manifest in six; less so in four; no improvement for hearing in seven. This procedure may also be useful in a diagnostic view; orifices made intentionally so large as to occupy one-half to three-quarters of the whole membrane enabled me in various cases to see pathological changes within the tympanic cavity: small osseous growths on the promontory, membraneous bands in different places, in two cases anæsthesia of the promontory on pressure; in one case I found the entrance of the fenestra rotunda filled up with osseous matter.

After an opening has been established, syringing of the ear must be avoided, even if a slight discharge should set in.

64 EAST 12TH STREET.

CANADIAN PHARMACY.—A bill has been introduced into the Ontario Legislature, prepared by the Ontario College of Pharmacy, which requires a preliminary examination of all apprentices, and a "minor" examination of assistants, and compels them to be registered. Before commencing business as a chemist, it will be necessary not only to pass a "major" examination, but also to have been for three years an apprentice, and for two years an assistant. It is also proposed that an apprentice shall be required to pay annually a fee of one dollar, an assistant two dollars, and a chemist in business four dollars a year to the registrar, which payment shall entitle him to be enrolled as a student, associate, or member of the College, and to receive their journal.

Progress of Medical Science.

INFLAMMATION OF THE CELLULAR TISSUE IN THE RIGHT GROIN, CAUSED BY ROUND-WORMS.—RECOVERY. —A shoemaker's boy, fourteen years old, was admitted into the hospital in Vienna, presenting a tumor the size of a goose egg in the right groin, above the inner third of Poupart's ligament. It was hard, sensitive on pressure, ill-defined towards the abdominal cavity, and the skin covering was reddened and doughy. It was not movable in any direction. There was evidence of a little deep-seated pus. The tumor was said to have made its appearance after a fall which the boy had sustained while carrying a heavy load a few days before, but it had meantime increased in size and had become more painful. In the absence of other signs of injury from the fall, the diagnosis had to be limited to an unexplained inflammation of the cellular tissue. Poultices were applied, and after two days there was distinct fluctuation over the whole surface of the tumor, and a crackling sound was appreciable, which suggested a communication with the intestine. Dr. Kumar made an incision two inches long, parallel to Poupart's ligament, and gave issue to some bubbles of air, some healthy pus free from smell, and finally a dead female round-worm. Three more worms afterwards came out alive. The patient had no recollection of ever suffering from worms before. No gas or fluid from the intestines appeared, and the wound healed at the end of six weeks.—*Bericht der K. K. Krankenanstalt Rudolph Stiftung in Wien*, 1873.

A CASE OF ABSOLUTE AMAUROSIS AFTER SUDDEN SUPPRESSION OF THE MENSES.—It was not uncommon in pre-ophthalmoscopic days to refer the occurrence of a sudden amaurosis to the arrest of some customary discharge or secretion. Of late, however, it has been questioned whether there was any such causal relation, and Von Graefe believed that thorough ophthalmoscopic examination would in such cases reveal the evidences of double retrobulbar optic neuritis. Dr. J. Samelsohn, of Cologne, believes, therefore, that much interest will attach to the case which we give in brief below.

A stout girl of twenty-one, during menstruating was one day exposed to wet, which caused an immediate stoppage of the flow. The same evening she felt a disagreeable sense of pressure in the orbits, and the pain and obscuration of vision increased so much that on the sixth morning she was totally blind. A physician applied some atropine drops, and twenty-four hours later Samelsohn found the following state of things, viz.: Absolute blindness in both eyes, no phosphenes produced by pressure, both pupils dilated to the utmost, the refractive media clear, and the fundus perfectly normal, except that the veins were apparently fuller than natural. The retina around the papilla appeared slightly grayish and highly refracting, while with the upright image it was a slight streaked; these features, however, and the fulness of the veins, remained unchanged up to the perfect recovery of the patient. There was also sensitiveness on pressing the globes back. She was treated by hot mustard foot-baths, sinapisms to the insides of the thighs, tartar-emetic in small doses, while Heurteloup's leech was applied to the temple. She afterwards had diaphoretics and pills of aloes and iron. Her sight began to improve, first in the right eye, and then in the left, the beginning of improvement in each case dating from a profuse flow of tears from the eye in question. At end of nine days she was discharged, being able to read Jaeger No. 1 with the right eye, and No. 3 with the left. Vision soon rose to the normal in the left eye, and menstruation was re-established at the end of seven weeks from the attack. The conclusions at which Dr. Samelsohn arrived were, that the eye symptoms were probably due to a circumscribed effusion of blood, either into the substance or sheath of the trunk of the optic nerve, above the point of entrance of the arteria centralis retinæ. He thinks the narration of the case may be of use in deterring the general practitioner from satisfying himself with calling such cases "hysterical," and he emphasizes the benefit of active treatment, such as was evidently of service here.—*Berl. Klin. Wochenschrift*, Jan. 18, 1875.

NEW METHOD OF PREPARING MERCURIAL OINTMENT.—The first No. of *El Estudio*, of Puebla, contains a method, proposed by D. J. Ibañez, for the preparation of mercurial ointment. The ointment is said to be equal to the best, and requires but a few minutes for its preparation. The following is the formula:—Take of lard 438 grammes, white wax 62 grammes, and rub together; take of chloride of mercury 16 grammes, and a sufficient quantity of lime-water.

Place the mercury in a marble mortar, large enough for the reception of the ingredients. Triturate with a wooden pestle, and wash the powder with lime-water several times; the resulting solution of chloride of lime is to be decanted from the powder. The transformation of the latter into oxide of mercury is indicated by its homogeneous dark color; it is then to be washed in distilled water. While quite wet, the powder is to be rubbed up with part of the cerate; then 488 grammes of purified mercury are to be added slowly while rubbing, and the whole combined with the remainder of the cerate.—*Repertoria Jalisciense.*

REMOVAL OF FOREIGN BODIES FROM THE THROAT BY INJECTION.—At a meeting of the Swedish Medical Society, Dec. 22d, 1874, Dr. Lamm showed a sharp-pointed, flat bone which he had removed from the throat of a man under circumstances which contraindicated the use of forceps or the other instruments usually employed for this purpose. The method adopted was to pass a fine and very flexible catheter to a point a little distance below the seat of pain. An india-rubber syringe was connected with the catheter, and warm water injected, at first slowly, and then with increasing force. The bone was suddenly expelled, and the water which returned with it was quite clear, showing that none of it had entered the stomach. It was supposed that the lower end of the œsophagus had closed spasmodically, and the bone was loosened and floated out by the distending force of the water pressing from below upwards.—*Hygeia*, Dec., 1874.

THE LEAST SACRIFICE OF PARTS IN OPERATIVE SURGERY.—At a meeting of the Medical Society of London, held January 11th, 1875, Mr. Bryant read a paper on the above subject, which he maintained should be a leading feature of surgical practice. His point was, that in operations the surgeon is only justified in removing such portions of the body as are absolutely necessary. In speaking of the surgery of the foot, he thought we were too apt to regard any individual case as a good one for a Chopart's operation, a Pirogoff's, or a Syme's, according to our own fancy or appreciation of the value of the one or the other of these operations; and that we were too prone to forget that a good recovery of the foot might ensue on the removal of the diseased bone or bones without any amputation at all. He quoted the advocate of Syme's amputation, in Holmes's Surgery, who says, after much experience, that "Syme's amputation is calculated to supersede entirely that of Chopart, besides taking the place of amputation of the leg in the majority of cases formerly supposed to demand it." He dissented from these views, and believed that in local disease of the foot alone, amputation should never be done until less severe measures had been employed without success; and that when amputation was called for, the minimum amount of foot should be removed.

He also stated that he believed these views applied to the surgery of the hand and other portions of the body. Cases were narrated in which suppurating and carious joints had been treated by free incisions, and the results were either partly movable joints or anchylosis. In such cases excision, or perhaps amputation, had often been practised.

In speaking of accident surgery, he maintained that only those parts that were irreparably injured should be removed, and that even doubtful portions of skin should be preserved. Mr. B. stated that he did not lay any claim to novelty in his statements, but he desired to emphasize the great principles of conservative surgery.—*Medical Press and Circular*, January 27, 1875.

MEDICAL OPHTHALMOSCOPY.—M. Bouchut, who was one of the earliest to lay stress upon the usefulness of the ophthalmoscope in medical diagnosis, has recently written in the *Gazette des Hôpitaux*, what he terms a *revue cérébroscopique* for 1874. After giving synopses of cases in which he had used the instrument, he insists upon its great value to the physician as well as to the oculist, and says, henceforth the physician may divine, and often affirm, lesions of the brain, cord, or meninges, the diagnosis of which before was impossible or only probable. Thus:

1. From hyperæmia and hyperæmic tumefaction of the optic nerve, there results the diagnosis of mechanical or inflammatory hyperæmia of the brain in meningitis, in cerebral hemorrhage, effusions into the brain, and in some cases the diagnosis of ataxic or other spinal diseases.

2. By papillary œdema joined to hyperæmia he recognizes œdema of the meninges, or an obstructed cerebral circulation, through meningitis, cerebral tumors, ventricular hydrocephalus, cerebral hemorrhage, meningeal effusions, thrombosis of the sinus, etc.

3. By neuro-retinian and choroidean anæmia he recognizes cerebral hemorrhage and *ramollissement*, and if the anæmia is absolute it is fatal. Empty arteries and veins of the eye, and an exsanguineous condition of the choroidean network indicate arrest of cerebral and cardiac circulation.

4. By exudative and fatty optic neuro-retinitis he recognizes chronic meningo-cephalitis, the encephalitis of cerebral tumors, and the changes in the nervous substance which accompany these tumors.

5. By retinian varices and thromboses he distinguishes meningeal thromboses or those of the sinuses.

6. By the aneurisms of the retinian arteries he recognizes the miliary aneurisms of the brain.

7. By simple retinian hemorrhages we recognize a compression of the brain by hemorrhagic or other effusions; but if these retinian hemorrhages are accompanied by retinian steatosis, there is also cerebral steatosis, and this is the case in chronic albuminuria, leucocythæmia, and glycosuria.

8. By atrophy of the optic nerve, tumors of the brain and cerebral or spinal sclerosis are discovered.

9. Finally, he says, tubercular granulations never exist in the choroid without similar ones in the lungs and other organs.—*Medical Times and Gazette*, Jan. 23, 1875.

RETROVERSION OF THE HEAD IN OPERATING ON THE MOUTH AND UPPER AIR-PASSAGES.—The difficulties and dangers attending bloody operations about the mouth and upper air-passages, no less than the sufferings of the patient when they are performed without anæsthetics, seem to have impressed Dr. Burow, of Königsberg. The operative procedures and apparatuses proposed successively by Nussbaum, Schönborn, and Trendelenburg, embracing a preparatory tracheotomy, and then the use of various devices for tamponing the pharynx, so as to prevent the flow of blood into the bronchi during deep anæsthesia, he finds objectionable, if not even unjustifiable on surgical grounds. He therefore gladly availed himself of the method suggested by Rose for meeting these difficulties. The anæsthetic is to be administered in the ordinary position on the back, and then the head being drawn back and bent over the edge of the table until the vertex hangs vertically, is supported in this position by an assistant who kneels at one side. The operator has, of course, to make all his incisions in the reverse direction, and the blood escapes partly through the mouth, but chiefly through the nostrils. Burow gives the details of two operations which he performed in this way, the first consisting in the removal of a small tumor connected with the alveolar process of the upper jaw on the left side. Anæsthesia was easily maintained. The second operation referred to was also the second of two required in the same patient for the removal of two tumors occupying the roof of the mouth and pharynx, and connected with the soft and hard palate. The first was done without chloroform, and by the aid of the galvano-caustic loop. The second involved resection of the upper jaw. The patient swallowed no blood, and made an excellent recovery. Rose is quoted as denying from his experience any danger from this position of the head, even in old persons, and when maintained for two or three hours. With careless assistants there might possibly be danger of luxation of the cervical vertebræ. The unquestionable increase of venous and capillary bleeding is claimed to be offset by the greater celerity with which the operation can be performed, from the quiet anæsthesia of the patient. Burow predicts a great future for the method.—*Berl. Klin. Wochenschr.*, Feb. 1, 1875.

SUBCUTANEOUS SYMPHYSEOTOMY IN CONTRACTED PELVIS.—Piccini claims that subcutaneous section of the fibro-cartilage of the symphysis pubis, followed by the application of the forceps, is a resource of which we may avail ourselves occasionally in the interest of both mother and child, in a pelvis whose diameter is three inches or less. He states, however, that the operation has been superseded by cephalotripsy and the induction of premature labor. He directs that the woman be laid on an inclined plane, the pelvis firmly supported, the bladder emptied by a catheter, a fold of skin taken up above the clitoris, and the cartilage then divided by a curved tenotomy knife. A starched bandage is to be applied after confinement. He says symphyseotomy is indicated in a contraction of between 2¾ and 3 inches, that it should always be done subcutaneously, and the forceps applied afterwards. He claims that of 19 cases reported in Naples, 15 women and 16 children were saved.—*Allg. med. Central-Ztg.*, Feb. 3, 1875.

PERITYPHLITIS FROM PERFORATION, WITHOUT FORMATION OF A FÆCAL ABSCESS—RECOVERY.—A laborer, 24 years of age, was admitted into the hospital in Vienna, suffering from an elastic, painful swelling, the size of a man's fist, in the region of the cæcum. The skin was unaltered, and there was indistinct fluctuation. On the second day after his admission, Professor Weinlechner, who had charge of the case, made an incision above Poupart's ligament, two inches to the inside of the ant. sup. spine of the ilium, and evacuated some pus, which had a fæcal smell. He felt with the finger a smooth, hard body like a bean, but could not remove it. This concretion finally escaped from the wound about seven weeks after the opening of the abscess. Weinlechner's explanation of the case was, that this concretion lodged in the vermiform appendix, set up inflammation round about it and finally itself perforated the appendix and escaped into the abdominal cavity. Here it caused the abscess, while the vermiform appendix closed, so that nothing further escaped from the bowel. A week after the discharge of this body the wound was so nearly healed that the patient was discharged.—*Bricht der K. K. Krankenanstalt Rudolph Stiftung in Wien*, 1873.

Hypertrophy of the Prostate.—This affection has received a great deal of attention at the hands of Dr. Axel Iversen, who has published his results in a recent monograph. He bases his description of the pathological anatomy of the disease upon 203 examinations of the prostate in persons between 36 and 83 years of age, and also upon 194 autopsies. Very full statistical evidence is thus furnished with regard to the occurrence of hypertrophy at various ages, its pathological anatomy, the extent to which it most frequently occurs, whether as partial or total, the changes it causes in the vesical orifice, urethra, etc. From the data he presents, it appears very distinctly that the disease does not occur as frequently as has hitherto been supposed; that the disposition to the affection increases markedly after the sixtieth year, and that the hypertrophy which, as a rule, may be said to be present where the weight of the organ is 25 grammes, is due histologically, sometimes to a myomatous and sometimes to a myo-adenomatous hyperplasia, which may occur more or less diffusely, or as a tumor.

The author does not corroborate the statements that have been made as to the frequent occurrence of the so-called Mercier's muscular valve; on one occasion only he saw something similar, but it proved to be a duplicature of the mucous membrane situated at the posterior border of the orifice, and barely two millimetres high; this fold disappeared, however, when the parts were viewed *in situ*, and only was seen when the urethra was slit up and the edges were stretched apart. He doubted, in fact, the existence of the peculiar fold described by Mercier, and the more as Dittel, in his numerous autopsies, had never met with such a valve. He therefore rejects this apparent barrier from the causes that produce dysuria and difficult catheterization, while he is inclined to believe that hypertrophy of the pars intermedia and the more or less prominent tumors of this region play important rôles in these regards. He lays great weight on the deformity of the orifice and on incurvation of the prostatic portion of the urethra thus caused, and explains by the changed condition of these parts the peculiar difficulties which are so often met with in the introduction of the catheter. The disease, he states, may often be present without betraying any symptoms. Good results were obtained by the injection of ergotine into the substance of the prostate.—*Ugeskrift f. Laeger*, Oct., 1874.

Bryant's Line as a Means of Diagnosis in Injuries of the Hip.—Mr. Bryant, at a recent meeting of the Royal Medical and Chirurgical Society, read a paper on a method of diagnosticating injuries of the hip, and especially impacted fracture of the neck of the femur. He described a triangle, which he called the ilio-femoral, and which was formed between the ilium and the great trochanter of the femur. One side of it, A B, was drawn from the anterior superior spinous process of the ilium, A, to the top of the trochanter major, B; the second, A C, was drawn from the anterior superior spinous process of the ilium, A, directly downwards to the horizontal plane of the recumbent body; and third, C B, the base of the triangle, was drawn at right angles to A C, and fell upon the line A B, where it touched the great trochanter.

The line C B he regarded as the test line in shortening of the neck of the femur, either from fracture or disease, and after repeated proofs he could confidently assert that, whilst in a healthy subject the ilio-femoral triangles of the two sides were exactly similar, in all cases of injury to the hips, in which shortening of the neck of the femur existed, the amount of shortening could readily and accurately be made out on comparing the bases (C B) or the triangles of the opposite sides. In impacted fracture, where on the sound side the base of the triangle would in the adult measure its average normal length of two and a half inches, it would measure on the injured side half an inch, and perhaps an inch less.

These measurements should be taken with the patient in the horizontal position, the pelvis straight and the thighs parallel. In the discussion which ensued, several objections were made to the plan; among others, the difficulty of obtaining the perpendicular line A C on a rounded surface, as well as getting the line C B at a right angle to it, and the trouble of determining with certainty the top of the trochanter in fat persons.—*British Medical Journal*, Feb. 13, 1875.

Nævus treated by Injection of the Perchloride of Iron.—Death from Embolism.—Dr. West, of Birmingham, reports the following case: A child, nine months old, had a nævoid tumor of the size of a marble on the right ala nasi. It was congenital, but had increased in size since birth. Three drops of a solution of the perchloride of iron were injected with a hypodermic syringe in each of three points on the tumor. Immediately after the last of these the child's face and extremities became suddenly cyanotic, the breathing and pulse stopped, while the eyeballs were rolled upwards and outwards and the pupils were slightly dilated. Artificial respiration was used persistently for a long time, and after seven hours or more the respiration went on without assistance, and the pulse improved; the child, however, remained semicomatose and hemiplegic for three days and then died. On post-mortem examination a clot was found stretching from the right internal carotid artery into the middle cerebral, and the anterior part of the brain was softened. The case would go to confirm the views of Bryant, Thomas, Smith, and Kesteven as to the dangers of this mode of treatment, especially in nævi about the face.—*Allg. med. Central-Ztg.*, Jan. 27, 1875.

Extraordinary High Temperature with Recovery.—It is ordinarily held in works on thermometry, and especially by Wunderlich, that a temperature of 107.5° is incompatible with recovery; that the temperature may rise, but the rising temperature is destructive to the patient. In the *American Journal of Medical Sciences* Dr. Da Costa gives a case of recovery after a temperature of 110°. It occurred in an Irish girl, with acute rheumatism, in the Pennsylvania Hospital. The day after admission the temperature was 105.5°; two days afterwards the skin was moist, but not excessively damp; the pulse was 120, the respirations 24, the temperature 103.5°. In the evening the pulse was 104, respirations 24, and temperature 110°, two observations confirming this record.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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WHAT IS THE LIMIT OF NEWSPAPER ADVERTISING?

We have had a great deal to say concerning professional advertising. If there was any desire on our part of making the subject a hobby, we could have plenty of excuses for so doing. The fact, however, is, that we are forced into its discussion by the defiant manner in which some of our brethren court public notoriety. Although wishing to be decently conservative, to strain a point in professional policy, to be liberal in the interpretation of intentions, we conscientiously think that it is high time to attempt to draw the line somewhere between professional honesty and shameful quackery.

It was the custom to settle all questions bearing upon our relations with the public by our code of ethics. The rules which governed our forefathers were absolute, and from a reasonable interpretation of their spirit and letter there did not appear to be any appeal. The line was then very distinctly drawn, and the boundary of our proprieties was punctiliously respected and zealously defended. Since then, by the expansion of our influence, and by our eagerness to explode old-fogyism, we have dared to cross the Rubicon of ordinary discretion, and to-day the presumed leaders in the so-called march of progress are very uncertain where they shall stop. If any one doubts the truth of this assertion, let him count up the number of medical lectures, medical addresses, and medical papers which are published by the secular press of this city. Let him also consider that this practice of professional advertising is oftentimes carried on in the face of our societies, whose duty it is to enforce our code.

As we have often said before, we believe it to be the duty of the profession to educate the public in such professional matters as are necessary to its welfare, to teach the people the difference between legitimate medicine and blatant charlatanry. We contend, however, that this can never be done by turning quacks ourselves.

Believing it to be our duty to be outspoken in this matter, we, even in this day, when newspaper advertising is timidly winked at by our County Society, dare question the right of any medical man to laud himself at the expense of his more deserving but less modest confrères. We care not who this man may be, whether a professor, a president of a society, or a leading practitioner, he is always amenable to discipline, and should, when found guilty, always be punished. If punishment cannot be inflicted without the fear of offending, then let us abolish our code of ethics, let the county societies alter their by-laws, and cease their presumptuous censorship of the profession. The Committee on Ethics may take up the case of some obscure individual, who, without influence and without friends, may be forced, in the face of starvation, to get business by unorthodox measures, and may annihilate him by expulsion. But how is it with some prominent men who presume to transgress the code with impunity? We have yet to hear of one who has ever been brought to account.

Whenever a medical man is proposed for membership to a society, there is a committee whose duty it is to inquire into his antecedents, to examine his diploma, and to take every pains to ascertain that he is a proper person for admission. The idea of any one becoming a member without a thorough examination of his standing, without the most searching scrutiny of his motives, is seemingly preposterous. To pass the ordeal of such a censorship is, conventionally speaking, a high honor. But when once the physician is admitted to membership the duties of this immaculate tribunal seem to end. The possibility of this member afterwards backsliding into questionable practices is apparently never entertained.

Let us consider what really constitutes professional advertising at the present day. We start with the assumption that it is the duty of the professional man to educate the people. We must admit that many, if not all the old prejudices concerning this necessity should be overruled. As members of a liberal profession we have no right to refuse information to the public. We can perform our duties in this respect, however, with perfect consistency and without any danger to our dignity. When we reflect how this is to be done, we can without difficulty settle upon the position of that boundary line of which we speak. So long as a man speaks for his profession as a science, and not of himself, he is in no danger of overstepping this line. His personality must be lost in the natural modesty which belongs to one who is the mere exponent of a principle. The moment he by direct assertion or by implication makes it to appear that he is more learned, more experienced, or more successful than the rest of his brethren, he becomes no better than the meanest quack. The secular papers are not disposed to make any distinction between the leader of public opinion on the general principles of medicine, and the professional charlatan whose only aim is to advertise himself for public patronage. We cannot expect that the editors of these papers would do this, even if they were competent judges on the premises. The medical man himself is alone responsible for allowing himself to be used as a means of sensationalism in any shape. If a newspaper reporter steals an abstract of his remarks before some medical society, and publishes the same the next morning, the case is bad enough; but what have we to say to the deliberate publication in full of medical lectures and papers, in which the writers appear as the centres around which the whole constellation of medical learning, experience, and skill revolves. The shameful presumption of such individuals is only equalled by their melancholy conceit. What have we to think of a medical man who boldly asserts in an article which he consents to have published in a widely circulated secular journal, that the entire profession is wrong in the treatment of some of the commonest diseases, and that he only is right; that his profession are entirely incapable of treating these diseases; that said diseases are voted to be incurable, and that he alone is capable of managing them successfully. We are informed that a paper of this sort created such a sensation in the profession, that its publication in a secular journal was demanded. The paper did create a sensation, but only on account of the absurdity of the position assumed by the writer.

In this particular instance the gentleman who read this paper before a medical society was not even a member of that body, nor, as far as we know to the contrary, a member of any medical organization of the city. When we are informed that the paper was presented by invitation of one of the executive officers of the association after hearing it read to him privately beforehand, we may excuse the course taken on the score of an error of individual judgment; but when we consider that the members should have so quietly tolerated the unfounded insinuations, the unjust assumptions, and ridiculous pretensions of the writer, we are more than astonished. It is a matter of congratulation, however, that the association has attempted to publicly disapprove of the sentiments of the author notwithstanding that such a protest is made at the risk of adding another martyr to the long list of would-be medical reformers.

As the case now stands, the New York Medical Library Association occupies an unenviable position before the profession and the public. It is virtually made the vehicle of a professional slander, and, practically speaking, is accountable for any excuse which the author has had for giving any respectability to his newspaper article. If learned associations are so liable to be misled in matters of this sort, how can we ever expect to call individuals to account?

MEDICAL CHARITY.

There is no doubting the fact that the College clinics directly encourage many of the abuses connected with medical charity. From what we can learn, patients in the rural districts who can pay their physicians at home, are getting more and more in the habit of presenting themselves for gratuitous treatment at the institutions in question than ever before. We have several letters on file detailing cases in point, in which there does not seem to be the slightest excuse on the part of the professors for even indirectly encouraging the practice. The time has come when a more rigid scrutiny should be exercised, when the fact that a patient comes from the country should be a sufficient reason why a thorough examination into his circumstances should be made. This is a very easy matter, and is an ordinary act of justice, the neglect of which is deeply felt by many country practitioners.

In one of the letters referred to, a prominent practitioner of Yonkers makes the following pertinent remarks:

> "It has often been a matter of comment, both by individuals in the profession and influential journals, that a wrong is being constantly perpetrated by the hospital, dispensaries, and especially by the College clinics in New York, not only upon many practitioners in that city, but also in all the neighboring towns and villages, by prescribing for, treating, and operating upon patients at these institutions for nothing, who are perfectly well able to pay, to say nothing of the fact that such operations thus performed are construed by the public into proofs of incapacity on the part of their local practitioners; and this is done apparently without the least effort to ascertain the facts in the case."

And after referring to a simple operation recently performed at one of the clinics of the College of Physicians and Surgeons, he further says:

> "The father of this child is able to pay for such a service, being the proprietor of an oyster saloon, in good business in this place, and ought to have paid for it. Furthermore, I myself had been consulted about this tumor, no great affair, some months previously, and had then explained its nature and advised its removal, and no doubt but for the facility thus offered for having it done for nothing, should have been asked to remove it. Now, sir, I am not speaking alone for myself, but for a large class of men equally wronged by such a state of things, and we think we have a just cause of complaint.
>
> "Of what use, it may be asked, is it for any one to work long and faithfully for a local reputation, when every simple operative case is thus seized upon in the great city near by, to say nothing of the loss of the fee, no great matter, to be sure, but an injustice all the same? And with what feelings do we listen to or read the magnanimous professions, on the part of professors and lecturers, of the duty to lend a helping hand to the younger brethren of the profession when these things are going on all around us."

Medical Legislation in Massachusetts.—A bill is before the Legislature of Massachusetts which provides for a Registration Board composed of two members from the Harvard Medical School, two from the State Medical Society, two Homœopaths, one Eclectic, and three appointed at large by the Governor. It has been referred to a committee, where it will probably find its quietus.

Reviews and Notices of Books.

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in every Emergency, etc. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, &c. From Third London Edition. Philadelphia: Lindsay & Blakiston, 1874, pp. 324.

A careful and trustworthy practitioner is the one who has a respect for simple details. Very often, however, in the hurry of mastering the outlines of our science in the so-called study of high art, the smaller matters are neglected. This is particularly true in the practice of midwifery. The younger practitioner who feels himself capable of performing a Cæsarean section, often utterly fails to introduce a catheter. Dr. Clay's work is calculated, not only to teach every minor, and, so to speak, trivial operation of the obstetrician, but the major operations, which, for their successful performance, require the greatest amount of skill and experience. Although covering a wide range of subjects, the conciseness with which each is treated, compresses the book into manual size. To the younger practitioner this work is of great value, and will be found a ready helper in times of direst need. In a short space of time it has reached a third edition, and we see no reason why a fourth should not soon be called for. Scattered throughout the work are numerous well-executed engravings, which, together with the style of the text, give it a very attractive appearance.

A Hand-Book of Therapeutics. By Sydney Ringer, M.D. Fourth Edition. New York: Wm. Wood & Co., 1875.

Dr. Ringer's well known Hand-book has now reached its fourth edition. This is in itself a criterion of the estimation in which the work is held by the medical public, for which it was written. The present edition has the same excellences as the previous ones, and the author has incorporated the important discoveries of the year which has passed since the publication of the previous editions.

Reports of Societies.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Meeting, March 5th, 1875.

Dr. Loring, Vice-President, in the Chair.

The paper for the evening was read by Dr. A. McL. Hamilton, upon "Certain Changes in Nerve Structure," accompanied by illustrations with magic lantern. The specimens exhibited were chiefly those illustrating changes produced by degeneration and mechanical injury. Specimens of myelitis and sclerosis were among the more interesting. A very beautiful illustration of the distribution of the sympathetic, pneumogastric, and other nerves, was shown. An illustration of an exostosis that had perforated the Casserian ganglion was also shown.

At the close of the exhibition, Dr. Burrall called up the subject of salicylic acid, and exhibited some specimens. It appeared that no one present had had any definite experience in its use as a disinfectant.

Dr. J. C. Peters referred in this connection to experiments performed by Ledwitschi upon bacteria. The results of the experiments were that the fungi were not affected by quinine, laudanum, strychnine, or carbolic acid. Tannic acid, sulphate of iron, and all the mineral acids, however, destroyed them very quickly.

In performing his experiments two drachms of fluid were used, which swarmed with bacteria, and ordinarily ten grains of the articles were used for their destruction in solution in an equal amount or less of water.

Adjournment.

Stated Meeting, March 12, 1875.

Dr. Gouverneur M. Smith, Vice-President, in the Chair.

ON PNEUMONIA.

Dr. J. C. Peters opened the discussion by reading a paper in which he first briefly referred to the anatomy of the lungs, embracing the ramifications of the bronchi, distribution of the capillaries, etc. He also exhibited several small plates, showing the distribution of the capillaries, the epithelial lining of the air-vesicles, and the exudation, together with its resolution, in different stages of the disease. In considering the causes of pneumonia, he remarked that the air-cells are exposed to influences coming from two directions; *first,* from without, through the air-passages; *second,* from within, through the blood. From without we have (1) intensely cold, pure, dry air, (2) cold, moist air, still pure, (3) all varieties of impure air.

From within, by way of the blood, we have effect of acute and chronic blood diseases; such as typhus and typhoid fevers, rheumatism, gout, alcoholismus, Bright's disease, etc., etc.

When any of these blood poisons are at work, and the patient is exposed to some influence from without, he is much more susceptible, and pneumonia is most commonly developed under some of these circumstances. That is, mio-idiopathic pneumonia is not of common occurrence.

The essence of this part of his paper may be embraced in the statement that the system, previous to the attack of the disease, either from the condition referred to by Murchison, as lithæmia, or in consequence of failure in fibrine destroying function of the liver and digestive apparatus, or in consequence of some influence which has instituted a condition of debility more or less marked, is rendered liable to attacks of inflammatory diseases; and, under the influence of certain exciting causes, especially to the development of pneumonia.

Heart-Clot.—He regarded heart-clot as a very common cause of death; consequently, measures to prevent it should be an important factor in the treatment of the disease. How does this happen? Fibrine is present in the blood of a pneumonic patient in greater quantity than in any other disease except acute articular rheumatism. This predisposes to coagulation, and the impeded circulation through the lungs favors engorgement of the right side of the heart, and the conditions are now established favoring the formation of the clot.

Three cases were mentioned of sudden deaths occurring in patients who were convalescent from pneumonia, but insisted upon taking undue exercise, and fatal results followed. Diagnosis of heart-clot was made in all these cases previous to death.

Treatment.—When the heart begins to fail he preferred nux vomica to quinine and stimulants; sometimes, however, he uses all of them. He also preferred ergot to digitalis.

The doctor then dwelt at some length upon the treatment adopted by Schönlein, Skoda, Fleischman, and others, which have already been reported in a previous number, under the head of reports from Academy of Medicine.

Dr. L. Weber continued the discussion. He confined his remarks entirely to the consideration of *croupous pneumonia*, and restricted them chiefly to the presentation of the views held by Prof. Jürgensen, of Tübingen.

Croupous pneumonia was defined as being an acute inflammation affecting the alveoli of the lungs and the smallest bronchi, in which an exudation is poured out upon their free surfaces more or less rich in fibrine, and coagulates when thrown out.

There is no other such inflammation of the lungs. Dr. Weber regarded Cohnheim's teaching as conclusive that some changes must take place in the walls of the capillaries before diapedesis, or migration of blood-corpuscles can take place.

Jürgensen claims that croupous pneumonia, unlike any other inflammation of the lungs, has a specific cause, the nature of which we do not at present know. His views are also opposed to those set forth by Boole, who claims that it is only the desquamative form of the disease, that form chiefly affecting the epithelial cells of the air vesicles, that goes on and undergoes cheesy metamorphosis.

He also claims that a great majority of fatal cases die from insufficiency of heart action, but it must not be considered that heart-clot is the cause of death; but death occurs simply in consequence of failure of the heart to perform its function, and is the first element in the process. The heart-clot that is present is secondary, and generally post-mortem, or formed just before death.

Jürgensen also regards croupous pneumonia as a constitutional, and not a local, disease. The inflammation of the lung is the principal symptom of a constitutional disturbance induced by the presence of a morbific element; hence, croupous pneumonia belongs to the class of acute infectious diseases.

The following are prominent among the proofs of this position: (1) geographical distribution shows that pneumonia is about equally distributed in different latitudes, while bronchitis, etc., are more prevalent in a northern latitude; (2) between other inflammations of the lungs and croupous pneumonia there is no agreement, so far as season of the year is concerned, with reference to frequency of occurrence; (3.) cold has nothing to do with predisposing to croupous pneumonia.

He also reasons upon the same point from anatomical considerations. Croupous pneumonia, with its coagulated exudation, is absolutely different from all other forms of inflammation of the lungs.

It cannot be produced artificially. *Clinically*, we fail (t) to notice a constant and lasting relation between the local manifestations and the constitutional disturbance, such as fever, etc. For instance, there may be a large amount of lung-tissue involved and the patient suffer comparatively but little; or again, there may be only a very small amount of lung-tissue involved by the inflammation, and the constitutional disturbance be very great.

Again, the general symptoms may suddenly subside without a corresponding retrocession of the local condition. There is no relationship between the local and general conditions. The local expression of the disease may remain while the constitutional difficulty has apparently disappeared. He therefore regards croupous pneumonia as essentially an infectious disease, and classes it in the same category with only two other diseases, namely, acute articular rheumatism and epidemic cerebro-spinal meningitis. All three are non-contagious, and belong to the malarial class.

Of course such a view of the disease must materially influence the method of treatment. The conclusion arrived at is, that when the system is affected by some morbific element, and we have to deal with an organism made sick by it, the treatment must be sustaining until Nature has effected a cure by eliminating the poison. The moment acute croupous pneumonia is recognized as an infectious disease, the same moment we should recognize the fact that it is the duty of the physician to preserve life, if possible, until nature has been permitted to exercise her curative powers.

Dr. Weber regarded Cohnheim's observations as conclusive, that resolution cannot take place until the walls of the capillaries have been restored to their normal condition. We have therefore no remedy which has a direct effect upon the local condition, and can only affect it indirectly by sustaining the system. The special poison is not the absolute destroyer of life, the dangerous factor as in other infectious diseases like diphtheria; nothing of the kind. The danger does not lie in the intensity of the poison, but more in the lack of power the individual has to offer against it.

Lastly, the cause of death in a great majority of cases was considered.

In commenting upon this point two things were regarded as essential: (1) function of the lungs; (2) fever.

Both of these factors have an influence in weakening the heart, and the danger to life consists in that effect. That is, patients with pneumonia die because of loss of heart-power.

In treatment, therefore, we have to look at the following points particularly:

First, management of the fever; *second*, treatment must be directed towards the heart, partly prophylactic of enfeeblement, and partly when it has become enfeebled; the object being to improve this condition as much as possible.

For the fever Jürgensen uses the moderately cold bath; permitting the patient to remain in it from seven to twenty minutes, according to the degree of temperature present in the patient. His custom is to give wine before and after the baths to prevent collapse, which may occur. In feeble persons the strong wines are used. He does not always use cold, however, to reduce temperature: but in many cases resorts to quinine, and he emphasizes the manner of its administration. To adults he administers ʒ ss., between the hours of six and eight in the evening, and does not repeat it until forty-eight hours have elapsed.

For children up to five years of age doses of gr. iss. for each year; and from five years upwards, from 8 to 15 gr., administered in the same manner.

He has found that the action of the remedy begins from four to six hours after the administration, and will continue, showing its effects in reduction of temperature and pulse, for twelve hours. He also has found that when the dose is repeated every twenty-four hours the effects are not as striking. Given in the manner indicated it will reduce the temperature from 2° to 3°. He also supports his patients at the same time in a reasonable manner, giving wine according to symptoms and according to the individual.

There are two symptoms which are almost always present and will require attention, namely, pain and sleeplessness. For the relief of those he uses anodynes.

Sometimes the quinine is sufficient to remove all sleeplessness, particularly in children.

Jürgensen does not endorse Niemeyer's view that venesection is sometimes justifiable in consequence of collateral fluxion upon the lung unaffected; but believes that such tendency is only the beginning of paralysis of the heart, hence does not regard venesection as necessary under any circumstances. How shall we help the heart? In ordinary cases mild stimulants will be sufficient, wine, etc. In severe cases camphor is his favorite remedy. Camphor acts slow, but continues to act for some time. He uses it in from 2 to 5 grain doses every three hours, given in emulsion. In cases of sudden and severe collapse he uses musk, in doses of 1 to 2 grains every two hours, until the immediate danger is averted, and then follows up with small doses of camphor.

In this connection Dr. Weber remarked that we have no reason to be dissatisfied with the results obtained by the use of carbonate of ammonia, stimulants. etc.

Jürgensen scarcely mentions digitalis. Dr. Weber regards it as one of our most valuable agents in the treatment of this disease, and recommended it in doses sufficient to increase the power of the heart. In cases of delayed resolution, abscess, and gangrene he recommended the use of oil of turpentine in doses of ♏vi. given six times a day. In such cases this remedy in his hands had worked very well.

The papers of Drs. Peters and Weber were discussed by Drs. Sell, Messenger, Hubbard, and Foster. The views of Jürgensen will appear in a forthcoming volume of Ziemssen's Cyclopædia.

* * *

ACADEMY OF MEDICINE.

Stated Meeting March 4, 1875.

Dr. S. S. Purple, President, in the Chair.

THE BUILDING FOR THE ACADEMY—THE MERITS OF AMPUTATION OF LOWER THIRD OF LEG—PERIOSTEAL FLAPS.

Dr. Anderson, of the Committee of Ways and Means, reported that $32,500 had been paid towards the new building for the Academy. With two or three exceptions, every dollar of the money has been obtained from some member of the Academy. No time is to be lost in making it a fit building to be occupied by the Academy.

Dr. Stephen Smith read a paper "On the Merits, Real and Comparative, of Amputation in the Lower Third of the Leg, with Suggestions as to the Prospective Value of Periosteal Flaps." He began with a quotation from Ambrose Paré, in which was couched a principle in operative surgery, namely, the special function of the limb should be considered, and, as far as possible, be preserved, in operation for amputation. This led him to speak of the relation that exists between the science and art of surgery, and the conclusion arrived at was, that the two are too much separated. In order to secure the greatest benefit for the patient, the mechanician should be consulted with regard to the proper point at which the operation should be performed, to enable him to adjust an artificial member to the greatest possible advantage for future usefulness. The two branches are dependent upon each other, and without their co-operation justice to the patient cannot be done.

From the time of Paré down to the present date, the old wooden peg, the old point of election, namely, amputation just below the knee, and the formation of what has been called the "poor man's stump," has very much influenced surgeons in the performance of the operation of amputation of the leg.

It seems, however, that there has been a diversity of opinion regarding the point at which the operation should be performed; some insisting that amputation just below the knee is followed by the greatest convenience and best results; and others insisting that amputation just above the ankle is much more favorable, when it is within the power of the surgeon to make a choice.

It is probable that the most generally accepted opinion of to-day is, that the operation is to be performed at any part of the leg the surgeon may elect. There are some, however, who still prefer the old point of election, and the poor and rich man's stump. Artificial appliances and limbs are now so abundant, have been so perfected, and are so nearly within the reach of every one, that the old peg leg should have no influence upon operations of the present day.

These limbs have been so perfected, that in the lower extremities particularly, function and symmetry can be almost completely restored. In operations for amputation the surgeon should be governed (1) by the safety and life of the patient, and (2) by the serviceableness of the stump. The serviceableness of the stump is influenced (1) by point of amputation, embracing consideration for the application of an artificial limb, etc; (2) by condition of stump; embracing the consideration of freedom from tenderness, situation of cicatrix, etc.

It is to be regarded as important that the patient shall be able to bear the weight of the body upon the stump, if possible. For if the patient is able to do this, a much more decided mechanical influence can be exercised over the artificial member.

The question now arises with reference to the part the periosteum may perform in securing such a condition of stump. Periosteal flaps have been made since the year 1860. They were first reported by a Russian surgeon. In 1862 and '63 Dr. McGill, surgeon in the U. S. A., reported several cases to the Surgeon-General. Other surgeons have also reported cases. The advantages claimed for such flaps are (1) necrosis, osteo-myelitis, and pyæmia are prevented; (2) cicatrix does not become attached to the bone; (3) stump is round and firm. The disadvantages are, liability to slough and the formation of osteophytes in the stump.

Dr. Smith presented a patient upon whom amputation had been performed just above the ankle, and the stump formed by the assistance of periosteal flaps. At the end of the fifth week the patient was able to bear very firm pressure upon the stump. The objects kept in view during the operation were (1) to cover the extremities of the bones with periosteum; (2) to make a single large flap which would completely enfold the extremity of the stump, and leave all the tissues between the periosteum and skin undisturbed. In his case the flap was made from the anterior aspect of the leg. The tissues were cut through to the bone by direct incision, and the outline of the flap made. The periosteum was then cut through, and raised with the flap. It was turned back until the upper limit of the first incision was reached, and at that point the bones were cut through with a very fine saw. Probably about half an inch of bone was uncovered of its periosteum at the angle of reflection that was not removed by the saw. No exfoliation, however, occurred.

* * *

Professor Von Leydig, of Tübingen, has been nominated Professor of Comparative Anatomy in the University of Bonn.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from March 14th to March 20th, 1875.

Head, J. F., Surgeon.—Relieved from duty in Department of Dakota, to proceed to Boston, Mass., and on arrival report by letter to the Surgeon-General. S. O. 44, A. G. O., March 16, 1875.

Hammond, J. F., Surgeon.—When relieved by Surgeon Moore, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 44, c. s., A. G. O.

Moore, Jno., Surgeon.—Relieved from duty in New York City, and to report in person to the Commanding General, Department of Texas, for duty as Medical Director. S. O. 44, c. s., A. G. O.

Bill, J. H., Surgeon.—In addition to his duties as member of Army Medical Board, to perform temporarily the duties of Attending Surgeon at Headquarters Military Division of the Atlantic. S. O. 44, c. s., A. G. O.

Azpell, Thos. F., Assistant Surgeon.—Assigned to temporary duty at Fort Columbus, New York Harbor. S. O. 42, A. G. O., March 13, 1875.

Rose, Geo. S., Assistant Surgeon.—To report to the Commanding General, Military Division of the Atlantic, for assignment to duty. S. O. 42, c. s., A. G. O.

Styer, Chas., Assistant Surgeon.—Granted leave of absence for one month. S. O. 34, Department of the South, March 16, 1875.

Semig, B. G., Assistant Surgeon.—Relieved from duty in the Department of California, and ordered to the Department of Arizona. S. O. 44, c. s., A. G. O.

Beall, G. T., Medical Storekeeper.—Granted leave of absence for fourteen days. S. O. 42, c. s., A. G. O.

Medical Items and News.

Annual Sales of "Medical Specialties."—An American correspondent of the *Chemists' and Druggistsr' Cicular* gives the following estimated value, in pounds sterling, of the annual sales of prominent patent medicines:—

Hostetter's Bitters	200,000
Drake's Bitters	140,000
Hoofland's Bitters	20,000
Brown's Ginger	50,000
Hall's Hair Renewer	80,000
Ayer's Pills	40,000
Ayer's Pectoral	30,000
Ayer's Ague Cure	20,000
Ayer's Sarsaparilla	30,000
Winslow's Syrup	100,000
Brown's Troches	50,000
Florida Water	50,000
Helmbold's Buchu	100,000
Kennedy's Discovery	20,000
Boudault's Pepsine	10,000
Dutcher's Fly Paper	10,000
Brandreth's Pills	30,000
Herrick's Pills	20,000
Schenck's Pills	20,000
Radway's Pills	40,000
Wright's Pills	30,000
Smith's Tonic	40,000
Tarrant's Aperient	20,000
Osgood's Cholagogue	20,000
Jayne's Expectorant	20,000
Pain-Killer	30,000
Sozodont	20,000

Report of Twenty-Eight Cases of Lithotomy.—Dr. H. S. West, of Sivas, Turkey, writes: These are the last in a series of 143, of which I have sent an account at different times to your Journal.

Of the 28 operations, 16 were lateral and 11 median. Ages of majority of patients from two and a half to ten; of six, from thirteen to twenty. All the patients recovered. Two suffered somewhat from secondary hemorrhage, but not so as to seriously prolong recovery.

Character of stone in 22 cases, lithic or lithate; in 5 oxalic; in 2 phosphatic. All were cases of single stone, but one, in which there were two.

Weight of largest lithic concretion, eleven drachms; of largest oxalic, fifteen. In this case the patient, twenty years of age, had been a sufferer from infancy. He did remarkably well, pulse never rising after operation above 84. Most cases in which I operate have some fever on the second day.

The remaining operation was on a girl, aged five. This should have been one of lithotripsy; but I found a fistula of the urethra, resulting probably from an ineffectual effort of a native practitioner to remove the stone by the urethra. I enlarged the opening by extending the incision through the meatus, and readily removed with a polyp forceps a concretion weighing about two drachms. At last accounts there was urinary incontinence, and no doubt fistula, which will require an operation.

I will add one case of lithotripsy. Patient, a girl aged three, who had suffered much for more than a year. I crushed at first sitting, and removed several fragments, and subsequently at two different times completed the clearing of the bladder, removing in all more than three drachms of calcareous fragments. The case was doing well at last accounts.

Another Centenarian.—Phebe Thomas died recently at Wilmington, Delaware, aged one hundred and four and a half years. She was a member of the Society of Friends, and the date of her birth was attested by the records of the Society. In the language of the Friends, she was born on the seventh day of the seventh month, 1770. At the age of ninety-five she was in the habit of driving about the country, alone, in her vehicle. A few years before her death her mind gave way.

Professor Heschl, of Gratz, has been nominated Professor of Pathological Anatomy, and Professor Lieben, of Prag, Professor of Chemistry, in the University of Vienna.

The German Public Health Association will meet in Munich, from the 12th to the 15th of September next.

Michigan State Medical Society.—The ninth annual meeting of this Society will take place at Detroit, commencing June 9th *proximo*.

Hydrophobia in Denmark.—Rabies exists to an alarming degree in nearly all the towns of Jutland. In Copenhagen the press is insisting upon the necessity that the Minister of the Interior should make it an offence for any one to bring a dog from Jutland to any of the islands, thus attempting to limit the disease to the peninsula, whither it has been brought, to all appearances, from Germany. There is hardly a day when the Danish papers do not cite one or more cases, and several people are reported to have died from this disease.

Prof. Benjamin Howard.—In consequence of continued ill health, Dr. Benjamin Howard, who is now in London, has resigned the Chair of Surgery in the University of Vermont.

The Cincinnati College of Medicine and Surgery graduated twenty-eight Doctors in Medicine on the 18th of February.

Dr. Mayo, whom the British Government has recently appointed one of the colonial surgeons at the Fiji Islands, was formerly staff-surgeon and medical inspector in the army of the United States, staff-surgeon-major and director of the "Alice" hospital at Darmstadt during the Franco-German war, and inspecting medical officer under the Dutch during the late Atcheen war.

Professor Zeissl, of Vienna, has received the cross of Commander of the Russian Order of Stanislaus, in recognition of his services to science.

Dr. Leopold Wittelshöfer, editor of the *Wiener Medizinische Wochenschrift*, has been made a knight of the Order of the North Star, by the King of Sweden and Norway.

The Third Annual Dinner of the Medico-Legal Society took place at Delmonico's on the evening of the 11th. Following the dinner, speeches were made to the following regular toasts:—"Welcome, all;" response by Clark Bell; "The Medico-Legal Society—Pills and Bills;" response by Dr. Wm. A. Hammond; "The Medical Faculty;" response by Dr. L. A. Sayre; "The Bench—The Awful Seat of Justice;" response by Judge Joseph F. Daily; "The Medical Profession;" response by Prof. A. B. Crosby; "The Bar;" response by Edward Patterson; "The Press;" response by Dr. Fuller Walker; "Our Sister Societies;" response by Dr. F. D. Lente; "The Academy of Medicine;" response by Dr. Ellsworth Eliot.

Long Island College Hospital.—The introductory lecture at the opening of the session of 1875 was given by Professor Samuel G. Armor, "Mental and Moral Epidemics" being the subject of the address.

The Breant Prize for the treatment of Cholera.—At the annual meeting of the French Academy of Sciences, Dr. Netter received 2,000 francs as part of the Breant prize for proficiency in the treatment of cholera; and under the provisions of the Montyon prize, Drs. Fano and Mandi received honorable mentions for their medicinal and chirurgical knowledge.

Woman's Medical College of Pennsylvania.—The twenty-fifth annual commencement of this school took place in Philadelphia on the 11th instant, the degree of Doctor in Medicine having been conferred on sixteen graduates. The valedictory was pronounced by Professor Mary J. Scarlet Dixon, and in the evening the faculty gave a reception in the new college building.

Variations in Skin-Markings as a Means of Identification.—Mr. W. B. Woodbury recommends that for purposes of identification (of criminals, for example) it is only necessary to get a distinct photograph of the palm of one hand, taken in a strong oblique light, so as to bring out the markings strongly. This will be found a map, he says, never alike in two persons, and which no disguise short of actual disfigurement can do away with.

Laws regulating the Practice of Medicine in Georgia.—The Legislature of Georgia, before its recent adjournment, passed a law creating a State Board of Health, which board is charged with the registration of births, deaths, and marriages, in addition to its general sanitary duties; and, secondly, a law granting to physicians the same right of garnishment for their fees as has previously been given to grocers and provision dealers for their security for supplies furnished to laborers.

Mark Twain on the Physicians' View of Life.—In one of his admirable letters to the *Atlantic Monthly* about "Old Times on the Mississippi," Mark Twain, after telling how his experience in learning steamboat piloting had changed the thoughts which had been awakened by his first knowledge of that noble river, says: "No, the romance and the beauty were all gone from the river. All the value any feature of it had for me now was the amount of usefulness furnished toward compassing the safe piloting of a steamboat. Since those days I have pitied doctors from my heart. What does the lovely flush in a beauty's cheek mean to a doctor, but a 'break' that ripples above some deadly disease? Are not all her visible charms sown thick with what are to him the signs and symbols of hidden decay? Does he ever see her beauty at all, or doesn't he simply view her professionally, and comment upon her unwholesome condition all to himself? And doesn't he sometimes wonder whether he has gained most or lost most by learning his trade?"

Bureau of Medical and Surgical Relief for Out-Door Poor.—(Out-Door Department of Bellevue Hospital.) The annual report of this institution shows the following items:

New patients during 1874	25,591
Increase over 1873	3,464
Visits of patients during 1874	83,309
Increase over 1873	11,567
Prescriptions dispensed during 1874	88,197
Increase over 1873	10,389

The proportion of visits of patients in each department is as follows:—Diseases of women, 5,250; diseases of children, 15,112; diseases of the eye and ear, 2,913; diseases of the chest, 19,927; diseases of the digestive organs, 16,146; diseases of the nervous system, 2,057; diseases of the skin, 5,492; diseases of the male genitals, 4,873; department of orthopædic surgery, 788; department of general surgery, 9,827.

Cæsarean Operation on the Cow.—The veterinary surgeon Lehnert has performed this operation upon a cow affected with phthisis pulmonaris in an advanced stage, with the effect of delivering a living calf, which was successfully reared.

Infinitesimal Dosing.—Dr. John C. Peters, in his address on "Sects in Medicine," delivered before the New York Medico-Legal Society, says: "The Tartar physicians, or Llama doctors, have long superseded infinitesimal doses, as, if they do not happen to have any medicine with them, they are by no means disconcerted, for they merely write the name of the remedy they wish to give on a little scrap of paper, moisten this with the saliva, roll it up into a pill, which the patient tosses down his throat with the same perfect confidence as he would aloes, assafœtida, or any other remedy. To swallow the name of the remedy, or to take the medicine itself, say the Tartar physicians, by any patient, comes to precisely the same thing. If paper is not at hand, the name of the drug is written with clay or chalk upon a board, which is then washed off, and the patient swallows the liquid."

Some of our physicians even dispense with this formality, and do not give any medicine at all. They certainly have the advantage over the Tartar doctors, as they save themselves some trouble and do not run the frightful risk of mispelling the name of the drug and perchance killing the patient.

Growth of Cork in California.—California is making a growing business of raising cork. There are already some artificial forests from which bark can be obtained thick enough for an ordinary cork.

A Board of Officers, to consist of Colonel Rufus Ingalls, Assistant Quartermaster-General; Major Alexander Chambers, Fourth Infantry, and Assistant-Surgeon George A. Otis, is appointed to meet in this city on the 1st of April to decide upon the pattern and prepare specifications for the ambulances for army use.

Vaccination in New Haven.—Over one thousand school children were recently vaccinated in three days in New Haven, Conn., the lymph for the purpose having been furnished by the Health Board of this city.

Typhus in the School-ship Mercury. — The school-ship Mercury, of the Department of Charities and Correction, was at Barbadoes on Feb. 14. Eight of the boys had been attacked with typhus fever. One of them, named Reilly, whose parents are supposed to reside at Avenue A and Eighth st., died on Feb. 6. The sick boys were isolated, and the rest of the crew have escaped the disease. The sick ones are said to be rapidly recovering.

Medical Board of Bellevue Hospital.—At the reorganization of the Board on the 15th of March, the following officers and committees were chosen:—*President*, Dr. A. Clark; *Vice-President*, Dr. J. J. Crane; *Secretary*, Dr. E. G. Janeway; *Committee of Inspection*, Drs. Polk, Thomson, Janeway, and Clark; *Committee on Examinations*, Drs. Wood, Sands, Loomis, and Crane; *Committee on the Apothecaries' Department*, Drs. G. M. Smith and Thomson; *Committee on Records*, Drs. Wood and Clark; *Committee on Clinics*, Drs. Gouley, Sands, Janeway, and Loomis. The result of the drawing for duration of service was as follows:

To serve for seven years:—Drs. Mott, Wood, Hamilton, Sands, Delafield, Flint, G. M. Smith, and S. Smith. To serve for five years:—Drs. Gouley, Lusk, Barker, Polk, Thomson, Mason, Jacobi, and Markoe.

To serve for three years:—Drs. Sayre, Janeway, Budd, Loomis, Krackowizer, Taylor, Clark, and Crane.

The Invention of Spectacles.—On a tombstone in Florence is this inscription: "Here lies Salvino Armato d'Armati, of Florence, the inventor of spectacles. May God pardon his sins. The year 1318."

Dr. Ernst Krackowizer has resigned his position as Visiting Surgeon in Bellevue Hospital.

Based on the fact that in Mexico medical education is free, the schools being supported by the Government, a recent decree by a superior tribunal declared that the State had a right to the professional services of physicians when required in courts of justice. The physicians have responded that, on the same principle, as all education is free, all citizens should render their services as teachers upon the same patriotic terms.

The Park Hospital, on Centre St., has been reported as unsafe for occupancy, owing to settling, bulging, and cracking of its walls. The Commissioners of Charities and Correction have asked the Mayor to furnish other quarters for the hospital during the time necessary for repairing the present building or constructing a new one.

The Alumni Association of the Miami Medical College have elected the following officers for the ensuing year: *President*, Dr. W. T. Brown; *Vice-President*, Dr. J. B. Porter; *Secretary*, Dr. William Judkins; *Treasurer*, Dr. J. L. Cilley; *Executive Committee*, Drs. Wm. B. Davis, B. Stanton, J. L. Neave. The annual reunion and banquet was held on the 2d inst. at Cincinnati, when an address was delivered by Professor Wm. B. Davis on the subject of Medical Education, the ground being taken that a higher degree of culture is required, and that the standard, both for matriculants and graduates, must be raised.

Dr. Frank H. Hamilton has resigned the Chair of "Practice of Surgery, with Operations and Clinical Surgery," in the Bellevue Hospital Medical College.

The Advantage of Milk Diet.—Dr. L. R. Rogers, of Albany, sends us the account of a severe case of typhoid fever, for the purpose of illustrating the milk-diet principle.

He says: "The point to which I wish to call attention is the diet part of the treatment. As soon as I felt sure that she was to have a regular "run" of fever, I commenced to give milk—fresh, raw, cow's milk from one cow—and not more than 12 hours' old at any time. I gave, during the height of the disease, from 1½ to 2 quarts per day, at every hour first, then every ½ hour, and for over two weeks every ¼ hour, without any water or other food, except a few times when I tried beef-tea and other dietary preparations. The latter in every instance raised her pulse and fever, and thickened the fur on tongue. Her bowels gave no trouble, moving by injections once in four or five days, the dejections like those of an infant. Quinine and stimulants made her worse every time when tried, and the severe pain in back and limbs, which came on every day about 6 P.M., was quieted in ten or fifteen minutes by a mild current of Faradic electricity, from the back of the neck to the sacrum or feet, which was continued twenty or thirty minutes.

This treatment I used for thirty-two consecutive days, giving each time a good night's rest, free from pain, without anything in the shape of opiates. I had the best counsel the county afforded, and the case was considered by all who saw it as one of the most severe.

Small doses of the sulphite of soda was all the medicine she took that did not disagree, and I gave this simply to prevent decomposition in the milk.

There were many fatal cases in the epidemic, but all who bore milk well recovered. In this case, although she had the nourishment in 1½ to 2 quarts of the best milk, she continued to get weaker and weaker for over four weeks, which shows very plainly that any other diet would have failed to meet the emergency.

Milk contains all that is needed to nourish and keep up every part of the system nearly, and is always the same; while our best dietary mixtures are wanting in many things needed by the economy, and cannot be made twice alike. I have since that time used milk very freely in all stages of various diseases, and have had reason to be well satisfied with it as the best of any one article of diet, among both adults and children.

I do not put forth this case as one to copy from in the particular treatment, but simply to show that the best article of diet that the world contains, either in disease or convalescence, one always obtainable, and nearer alike in quality, that patients are having the same disease, to show that it is too often neglected, and complex dietary compounds used instead. The patient in this instance was confined to the house over eight weeks, and made an excellent recovery. She was thirty-six when it occurred, and is now forty-three, and has never been sick since."

Weekly Bulletin of Meetings of Societies.

Thursday, April 1.—New York Academy of Medicine. The Pathology and Etiology of Pulmonary Phthisis in relation to its Prevention and early Arrest, by E. Darwin Hudson, Jr., M.D.

Friday, April 2.—Medical Library and Journal Association.

Saturday, April 3.—New York Medical and Surgical Society.

Original Communications.

CASES ILLUSTRATING DIFFERENT DEGREES OF SUSCEPTIBILITY TO ELECTRICITY.

By GEORGE M. BEARD, M.D.

I apply the term *electro-susceptibility* to that peculiarity of the system that makes it capable of being affected for good or ill by electricity. Electro-susceptibility refers to the distant and permanent, as well as to the direct and immediate effects, of electrical treatment, and therefore differs from electro-sensibility, which is restricted mainly to the sensitiveness of the body, to electricity as evidenced during the application.

Electro-susceptibility may be subdivided into farado-susceptibility and galvano-susceptibility; some are very susceptible to the influence of the faradic and not to the galvanic, and *vice versa;* and some are very susceptible to both currents.

We recognize these different orders and modifications of susceptibility to various medicines in daily use. Thus there are many—and their number seems to be increasing—who are very susceptible to opium in any form or preparation; they cannot take even a small amount without suffering headache and nausea, and they are kept awake rather than made sleepy by it. Again, there are some who can bear and be benefited by certain preparations of opium, but not by others. Similarly, hydrate of chloral does better for some; bromide of potassium for others; and there are those who can be made to sleep only by a combination of the two remedies.

It is impossible to tell from the appearance of any patient whether he will or will not be susceptible to opium, or bromide of potassium, or alcohol; still less can we tell from personal appearance which form of opium will best and which will worst suit him, or whether bromide of potassium or hydrate of chloral will give him the best relief from insomnia.

This general law, however, holds that the nervous and delicate are more susceptible to all these powerful remedies than the phlegmatic and the strong, and that among the higher and brain-working classes smaller doses must be used and greater caution is requisite than among the lower and muscle-working classes. But both ways the exceptions are many. There are strong, large, and burly men who cannot bear opium or alcohol in any dose; there are some who can bear large quantities of alcohol, but very little of opium, and so on; and contrariwise, there are sensitive and exquisitely delicate women on whom alcohol or opium makes little impression. The range and variety of idiosyncrasy in these respects are infinite and mysterious.

In their electro-susceptibility patients similarly vary. As a general law, the higher classes bear less of electricity than the lower classes: women less then men; Americans less than Europeans; Fifth Avenue must be treated more tenderly than Five Points. And yet the exceptions to this general law are numerous and striking; there are sensitive and feeble women, in the last stages, it may be, of some severe disease, who can bear enormous doses of electricity, and there are sturdy men who can drink whiskey by the tumblerful and smoke all day, and who can easily be made miserable by a mild current applied for less than five minutes.

For some mysterious cause that may never be explained, some patients who are made worse by the faradic current in the method of general faradization, are benefited by the galvanic current in the method of central galvanization.

In some cases excellent results are obtained by alternating these methods, or by combining them in the method of galvano-faradization. In some cases I have seen advantage from using both general faradization and central galvanization at the same sitting, not simultaneously, but in succession.

In regard to this matter of susceptibility to electricity, there are three facts of great interest as well as of practical importance.

First. Children are less susceptible to electricity than adults. In experiments made during the past two years I have shown that infants of both sexes, at an extremely early age, from a few weeks or months, ofttimes, can bear almost if not quite as much electrical treatment, faradic or galvanic, central, general, or local applications, as the average adult. The immediate effect of electrical treatment of infants is to produce sleep and allay irritation, just as in adults, but more positively; the permanent effects are increase of liveliness and vigor, improvement in desire and capacity for nursing and taking food, and these permanent effects are not so often, as in adults, complicated with unpleasant effects indicating special susceptibility, whence I judge that in the infantine constitution there is some quality, or lack of quality, that renders it less susceptible to the electrical force than the constitution of adults. The one practical difficulty of making full comparison in this respect, on account of the slight intelligence of children, and their inability to observe or express their feelings, I admit of course; but when the electrical treatment produces calmness and repose in children, as in adults, it is usually, if not always safe and just to assume that all its effects are good, and only good, and that, even if the special disease is not cured, the patient will not be harmed, and, in a general way, at least, will be benefited.

Secondly. Those who are at first unpleasantly susceptible to electricity may in time become so tolerant of it as to be benefited by it.

It is important, therefore, not to be discouraged when at the beginning of a course of treatment various unpleasant symptoms occur; but to persevere, making the applications short, mild, and giving long intervals.

Thirdly. A limited number of patients in the higher walks of life can never acquire a tolerance of electricity, however cautiously it may be given, or however long the intervals between the applications. To persevere in treating such persons, after full and fair trial by very mild currents carefully given, by long intervals, is a blunder. The disagreeable effects that follow the applications, even on this class of patients, are however usually of a temporary character.

Fourthly, There are occasionally found those who are but slightly susceptible to electricity, who can bear long and strong applications, but who, notwithstanding, are not benefited by it. Of the various classes of patients with whom we have to deal, this is the most provoking; they can be treated indefinitely, and without showing any good effects of treatment; they become neither better nor worse, and no amount of perseverance seems to have any reward.

The following case shows that a delicate person may be unpleasantly susceptible to the faradic current, may bear good doses and be benefited by the galvanic current,—in other words, there may be great farado-susceptibility, and only average galvano susceptibility.

Case I.—Miss P——, an unmarried lady of about 38 years of age, had been paralyzed for some years in the lower limbs, and withal had passed through a terrific storm of hysterical symptoms, general hyperæsthesia, insomnia, trembling, trepidation, debility in the extreme, morbid fear, and so on.

She had been treated at one time by general faradization, without important benefit. When I first saw her the symptoms were partial paralysis of the lower limbs, and great pain in the dorsal and lumbar region of the back on attempting to walk, and some insomnia. I treated her at first by local faradization of the paralyzed muscles, but this, though carefully used, seemed to irritate. I tested this question several times, and assured myself that it was not a coincidence—that she was susceptible more than is wont to the faradic current. I then tried the galvanic current centrally and locally, and found that she could bear this well and frequently, and improved under it rapidly in all her symptoms. I found that she could bear easily central galvanization with quite strong currents, applied for a considerable time, and that such treatment was followed always, or almost always, by a relief of nervousness and a disposition to sleep, and by mitigation of the hysterical pains in the back and limbs. She improved so far that she could walk about, and for a considerable distance, without the need of the mechanical support that she had formerly used.

The following case illustrates the important fact that one may be very susceptible to electricity, may indeed be harmed by a severe shock, and yet be benefited by careful management, and appreciate on the average all the well-known tonic effects of electrical treatment.

Case II.—A young physician had been troubled for some time with neurasthenia and hypochondriasis. It was found by trial that he was quite susceptible to electricity, and it was necessary to be very moderate in the doses. Central galvanization was the method chiefly used, and under this treatment, given at considerable intervals and in conjunction with internal medication, there was an improvement in his symptoms that promised to be and has been permanent, for one year at least; but on one occasion I chanced to give him a moderately severe shock through the head, by interrupting the current when the positive pole was over the cranial centre and the negative pole at the pit of the stomach, and as a result he was put back in his progress towards recovery by at least a month. Possibly the patient, who is a medical gentleman of intelligence, may have overestimated the evil effects of this single shock, and the mind may have acted on the body, and may have reinforced a slight genuine evil by a great imagined evil; but I will admit that he was right in his opinion, and that his temporary relapse was caused by the interruption of the current through the head, and by no other agency. Such results are, however, excessively rare. I have never met with another just like it. The evil symptoms that follow such shock through the head and neck usually pass away in a few moments or hours, or at least in a day or two at most, and the patient returns to his normal condition. Very few indeed are at all injured by them. In the present case the treatment was continued after an interval, and the gentleman is, I believe, permanently better.

Case III.—A young man, a mechanic, had been troubled with impotence for several years, the result of various excesses. His impotence was not absolute, being rather a diminution than abolition of virile power, and uncertainty in the execution.

I found that this patient could bear, without any perceptible ill effect, very powerful currents, galvanic or faradic, applied for a long time, externally or internally. In using the urethral electrode I found that a certain portion of the canal about one inch in length had so little of electro-sensibility that strong faradization gave slight pain.

In spite of this unwonted tolerance of electricity the patient improved but very little. In the majority of cases impotence and spermatorrhœa are very much benefited by judicious electrical treatments, and in some instances the results are most gratifying; but in this case perseverance was rewarded by only a little increase of power.

The case is of interest mainly as illustrating that it is possible to be very tolerant of electricity in any form, or however administered, without showing any effect of electrical treatment. The tolerance gives no advantage. The prognosis is better when there is greater susceptibility—when there is, so to speak, something to work on—something to be done in the way of building up a sensitive and nervous constitution.

Case IV.—A widow lady, about thirty years of age, had all her life been nervous; among very many other difficulties, had suffered from obstinate and long-standing prurigo and podalgia, or aching of the feet, with paresis of the extensors of the legs. I treated her by central galvanization, and also by localized faradization and galvanization of the paretic muscles of the aching feet. The result has been remarkable for the temporary relief of the prurigo, and the strengthening of the extensor muscles. Her catamenia came in the middle of the treatment, and lasted in all seventeen days; they were also quite profuse, and weakened her not a little. It was clear that the electricity was the cause, for previously she had been annoyed by amenorrhœa. The case was interesting also as showing that electrization of the lower limbs and feet may, by reflex action, have a most powerful effect on the pelvic organs. At no time were the applications made through or over the uterus or ovaries. At one time, when the courses had apparently stopped, electrical treatment of the feet was resumed, and at once the discharge reappeared, and for several days the flow was profuse.

In spite of these untoward experiences the lady persevered, and was rewarded by improvement of all her symptoms, of a most remarkable character.

Case V.—The wife of a physician was treated by me for rheumatism affecting especially the shoulders, and the applications were made mainly to the shoulders and arms, and mild currents were used. The effect was to bring on a very profuse and prolonged menstruation, by which the treatment was interrupted, and it was not resumed.

In this case, as in the preceding one, the patient might have acquired a certain tolerance of electricity, and been benefited had she persevered.

Some of the reflex effects of electricity are very interesting and suggestive.

Case VI.—A gentleman, who has for years been troubled with hyperæsthesia of the left hand and fingers on the palmar surface, appears to be very susceptible to either current, to whatever part of the body it may be applied. A very mild galvanic current causes a sense of numbness and rigidity in the affected arm and hand, and sometimes also induces a tingling or pricking in the other hand and arm.

These abnormal feelings, with many variations, may continue for several hours or days following the application. In spite of this impressibility the appetite of the patient appears to improve under the treatment, although the hyperæsthesia, which was of a troublesome character, remains the same.

se VII.—A lady that was treated by galvaniza-
hrough the lumbar region and bowels, remarked
vhen the electrode was placed over the middle of
umbar vertebræ, a peculiar sensation was felt at
rown of the head—the cranial centre, as I have
d it—where pain and burning sensations are so
experienced by women suffering from uterine dis-
s, and the place where the positive pole is rested
e method of central galvanization. The reflex
n takes place, we may suppose, through the
ital nerves.

is same patient, when treated at the anus, some-
experienced a slight thrill or transient numbness
the arms and hands. The effects were noticed
feeble galvanic currents were used, and the elec-
s were placed less than a quarter of an inch from
other. The effects must then be purely reflex.

uspect that in surgical as well as in medical dis-
his element of the susceptibility of the patient
ctricity is to be considered, and is of importance
e prognosis. It is observed that the pain accom-
ing various forms of malignant tumors is frequent-
y much relieved by local galvanization ; this relief
appear in the midst of an application and may
nue for hours, perhaps for a day or two.

th this relief of pain there may be an apparent ar-
f the growth ; even though it does not grow any
er it appears to stop growing larger, or at least in-
es more slowly than before treatment. If the tumor
cerating, the ulcerated surface, if treated, may put
healthier appearance, and the quantity and quali-
the discharge may be very greatly modified.
here are malignant tumors, which, to external ap-
nce at least, are not of the ugliest type, and
h are painful, but the pain is but little relieved
alvanic treatment with or without the needles,
here is no arrest of the growth. Whether the dif-
t behavior of these tumors depends on their inti-
structure, pathologists must determine; but the
may justly arise whether the temperament of
atient—the electro-susceptibility—may not have
thing to do with these opposite results of treat-
by electricity. It may be that if a tumor over
h electricity had no power were transferred to
er person of a different temperament, the results
d be more favorable.

ave recently treated two cases of tumor of the
t, with a view to relief of pain. In one case,
more advanced and most malignant in appear-
, the relief of pain, and of the uneasiness that is
times worse than pain, has been most grateful,
the tumor, though it had long been ulcerating,
nade little advance. Withal, the general vigor of
patient has improved under central applications.
experiences no evil effects from even strong and
nged treatment; her temperament, without re-
to any disease from which she may be suffering,
apted for electrization. At one time she suffered
rheumatism, which was promptly and perma-
y relieved by galvanization.

the other—a lady younger than the other, and
as strong—a tumor of the breast, similar in the
ral character and malignancy, but smaller and
n much earlier, has not been benefited by elec-
l treatment ; the growth was not only not arrested,
went on rapidly. When central applications were
e the patient gave evidences of unusual suscepti-
y to electricity. Is it not possible that if these
patients could exchange their tumors, the results
eatment might be reversed.

me cases are susceptible in a most interesting way
e hypnotic effects of electricity. I once treated
by central galvanization a young lady who almost always closed her eyes, began to nod in less than two minutes after the positive electrode was placed over the region of the sympathetic and pneumogastric, at the anterior border of the sterno-cleido-mastoid muscle. If the current were allowed to run for several minutes the patient would drop fast to sleep, but of course was easily awakened. Rapid hypnotic effects were produced also whenever the current was applied in the back or around the neck in any direction.

I have recently treated another case, where similar, though less decided hypnotic effects were obtained.

In some cases the susceptibility of patients to electricity shows itself very slowly—perhaps not until a day or two following an application. Such cases are very illusory; it takes close watching on the part of the patient, and close questioning on the part of the physician, to detect this peculiarity. Just after a séance, and very likely for several hours following each séance, the patient may feel as well as ever—possibly a little relieved—but on the evening of that day, or on the following day, the unpleasant symptoms may appear.

Cases of this kind need not be abandoned ; they may be positively and permanently strengthened by cautious and faithful treatment ; but they must be treated warily—sometimes by long intervals, possibly several days between the applications.

CASE OF HYDROPHOBIA.

By WILLIAM W. HEWLETT, M.D.,

BABYLON, L. I.

I WAS called to see the patient Feb. 1st, 1875, and obtained the following history of the case, up to the time of my visit, from the wife, who is an intelligent woman. Mr. R., aged 55, was bitten by a worthless cur of the hybrid species on the forefinger of the right and the thumb of the left hand, on Nov. 30th, 1874. The wound received no treatment beyond the application of the salves and ointments peculiar to the neighborhood. It healed in about a week. The animal had been cruelly whipped for some slight offence, but had evinced no symptoms or peculiarities that attracted observation. Unfortunately the dog was shot immediately after inflicting the bite. Mr. R. expressed fears of hydrophobia directly after receipt of the injury. Had no marked dread of the disease before. His fear was so great that it often deprived him of sleep, and he frequently remarked that the disease would be his fate. He was in feeble health for two months from repeated attacks of bronchitis and prolonged watching and attention at the bedside of an invalid mother. On the evening of Jan. 30th, he seemed greatly depressed in spirits ; sighed frequently ; ate no supper ; felt thirsty, but drank nothing. He retired early to bed ; did not sleep ; would start up suddenly and appear alarmed. At 3 A.M. the following day a messenger was dispatched for medical aid, which did not arrive until 9 A.M. Meanwhile patient grew more restless and alarmed. Complained of "distress," which he referred to the cardiac and mammary regions. His medical attendant prescribed bromide potass. and sulphat. morphia without any apparent result. He made several attempts to drink during the day, but swallowed only a small quantity of liquid, and that with great difficulty. Toward evening he grew more restless and excitable, occasionally jumped up and rushed hurriedly about the room. Was greatly shocked when asked to drink, and moaned frequently.

Overcome finally by his thirst, he attempted to drink a glass of water, which was followed immediately by violent spasms of the respiratory muscles, increasing terror and excitement.

I saw the patient first at 12.15 A.M., Feb. 1st. Found him extremely excited, eyes glaring with terror, pupils greatly dilated, imploring for help. Complained of thirst, but evinced the most terrible excitement and fear when asked to drink, or even at the sight of water. He was walking about with a hasty uncertain gait, throwing himself against his attendants and against the furniture and sides of the room. He groaned, and at times would spit violently. Respiration and circulation not accelerated except during intervals of excitement. Intellect perfectly clear. Injected morph. sulph. gr. i. in the arm with some difficulty. It had no effect beyond increasing slightly the volume of the radial pulse.

On presenting a glass of water to the patient, he would, with a tremendous effort as it were, overcome for an interval his horror, and standing erect, with muscles rigid and countenance expressing the most terrible anguish, with his chin elevated to make deglutition easier, he frantically seized the glass, and with great effort, requiring the assistance of his attendants, he carried it to his lips; but as soon as the water came in contact with the mouth he was seized with violent contractions of the laryngeal and tracheal muscles, succeeded by intense restlessness and excitement. During his excitable periods his attendants sprang away from him, as if fearing personal violence. On becoming quieter he told them he would not injure them, and begged them not to "smother" him. At 1.45 chloroform was administered. He readily and quietly came under its influence, which was continued nearly three hours. It then produced nausea, violent retching, and embarrassed respiration, which caused it to be suspended. During the greater part of the three hours he was quiet, but when only slightly under the influence of the chloroform he frequently became greatly frightened, and would jump suddenly on seeing the handkerchief that was held over his nose. As soon as the remedy was discontinued the former symptoms immediately returned, though with less severity, and he even swallowed a little beef-tea with some difficulty. Several attempts were afterward made to administer the anæsthetic, but he resisted so violently, and the spasms occurring again with increasing intensity, that it was considered prudent to relinquish it.

9 A. M. Ordered chloral hydrate gr. xl., in port wine. Found the patient feebler; spasms and restlessness continued, the former with greater intensity.

2.30 P. M. Restlessness and terror continued. Contractions not so violent. Drinks with less difficulty. Has taken half pint beef-tea, two or three glasses of water, half-pint port wine, and a cup of tea since last visit. Was quieter, but did not sleep after taking chloral.

4.45. Patient much weaker, pulse very feeble; hands and feet cold, integument clammy and shrunken; restlessness and terror continued. Groans as if in great suffering. Intellect clear.

5.20. Patient growing weaker; eyes glassy; frothing at the mouth; extreme restlessness. Intellect unimpaired.

5.50. Patient died suddenly and quietly ten minutes before, forty-eight hours after the first manifestation of symptoms of the disease.

These observations were taken and recorded at the bedside, and if the history of the case does not agree with the classical descriptions of the text-books, it is the patient's fault, not mine.

BABYLON, L. I., March 11, 1875.

EARLY OPERATION FOR HARE-LIP.

By E. R. MAXSON, M.D.,

OF SYRACUSE, N. Y.

In August of 1874, at the birth of a child with a fissure of the upper lip, on the left side, extending nearly to the nose, and involving the superior maxillary and palate bones, I was requested, by very anxious parents, to operate as soon as possible for the relief of the deformity, which was really great, and to them intolerably shocking.

I selected the eighth day after birth, taking everything connected with the case, including the chances for the child and the feelings of the parents into the account, and without chloroform, being assisted only by the nurse and another lady (the grandmother). I proceeded to operate in the usual way, by detaching the upper lip from the bones behind, paring the edges of the fissure from above downwards, carrying the knife inwards, saving the bottom of the cleft to prevent a notch; detaching the upper angle with sharp scissors, passing three small silver needles through about two-thirds of the thickness of the lips, commencing at the lower angles to make the adaptation exact, applying the twisted suture, commencing with the upper needle and cementing the suture and lip by collodion, as suggested by Fergusson, applying long strips of adhesive plaster made narrow in the middle to fit between the needles, and extending back across the cheeks; and finally, by placing a compress on each cheek to aid in keeping the two parts of the cleft lip together, and to aid in approximating the divided palate and superior maxillary bones; kept in place by a roller moderately tight, passed around the head, being stitched together to prevent slipping off.

The child appeared to suffer but little during the operation, and, indeed, afterwards. The dressings kept in place, and except for the cutting of the upper adhesive plaster by the nurse, during my absence, to make the child "nurse and breathe better," as she said, no accident occurred. I removed the pins on the fourth day, and all the dressings on the fourteenth day, only a small point at the upper part having filled up by granulations, the remainder having united by adhesion before the removal of the pins and reapplying of the adhesive plasters on the fourth day.

The child appeared tolerably well, but did not grow much for several weeks. But later it commenced to grow, and now, being about six months old, it is represented as being very large and the picture of health, and presenting little or no deformity, or even marks of the operation In fact, I believe that no one unacquainted with the *facts* has ever suspected that there had been a hare-lip, or an operation of any kind upon the child.

SYRACUSE, N. Y., March 12, 1875.

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BILLS UNDER LEGISLATION.—Senator Ledwith has introduced a bill providing that the Department of Charities and Correction of this city be awarded an amount not exceeding $50,000, for the support of adult blind persons, not inmates of any public or private institution, no person to receive more than $50. The same bill was introduced in the Assembly by Mr. Costigan.

Mr. Thomas C. Campbell introduced in the Assembly a bill to establish and equip the building of the New York Museum of Natural History, directing the controller to issue 30-year bonds to an amount not exceeding $300,000 to defray the cost.

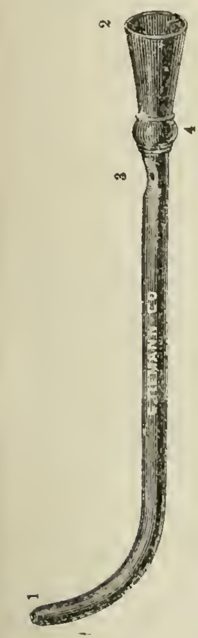
AN IMPROVED FORM OF INSUFFLATOR.

By BEVERLEY ROBINSON, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPARTMENT OF THE THROAT), ETC.

Every obstetrician has at times felt the need of a convenient and suitable insutllator, for the lungs of infants who are born in a state of semi-asphyxia, after a prolonged or difficult labor. In no one of the standard text-books of midwifery, which we have consulted, do we find such an instrument described.

In the accompanying wood-cut we see the form of an insufflator which would be, in our estimation, a real acquisition in the pocket-case of every general practitioner of medicine.



This insufflator is nothing more or less than a hollow tube, made of hard rubber, seven inches in length, and one-eighth inch in diameter, at its back extremity (1), and one-half inch at its pavilion (2). At the former end it is slightly beveled off and is curved like an ordinary tracheotomy canula.

Near the pavilion, or extremity which we place between our lips, is a small round orifice (3) on the under aspect of the tube, and just in front of this is a puppet valve (4).

If air be blown into the tube from the pavilion, the valve allows it to pass freely. When the chest walls and lungs come back on themselves during expiratory movement, the breath shuts the valve and passes out of the tube through the orifice mentioned. Again, this instrument may render good service in cases of diphtheria, or membranous croup. Tracheotomy has been performed at a late period of the disease, and asphyxia is already imminent. Now, frequently, when the operation is terminated, the patient does not breathe immediately, and is apparently dead.

Other usual means of restoring consciousness and arresting respiration prove ineffectual, and we would have recourse to insufflation of the lungs. In *our* insufflator we have the means of breathing air into the lungs without incurring the obligation of placing our lips directly on the outer extremity of the tracheotomy tube, and by its use (a most important consideration) we avoid the risk of contact of diphtheritic exudation and liquids with the mucous membrane lining our buccal cavity.

15 West 26th st.

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An Unselfish Physician.—On the 1st of January the streets of Paris were almost impassable, owing to the slippery ice which covered them, and the injuries which resulted from falls was numbered by hundreds. M. Loiseau, physician and member of the municipal counsel, was called at ten o'clock in the evening to attend a patient, and on reaching the Rue Rivoli fell twice, at first hurting his shoulder and next fracturing his leg. He was taken into a wine shop, where he remained until morning before he would permit them to call a surgeon, whom he would not be the means of exposing to the same risk. And when aid at length arrived, he insisted that the patient whom he had been called to see should first be attended to.

Reports of Hospitals.

ROOSEVELT HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

Dr. E. H. MAYNARD, House-Physician.

ACUTE INFLAMMATORY RHEUMATISM.

One case had been treated in the following manner, and with results which were entirely satisfactory.

The patient was kept comfortable in bed, and received hypodermic injections of $\frac{1}{120}$th of a grain of sulphate of atropia three times a day. No applications were made to the joints.

CHRONIC RHEUMATISM.

A case of the above presented itself the like of which every practitioner of medicine comes in contact with. When he came in, his joints were stiff, sore, more or less swollen, and he was unable to walk. The knee-joints were especially affected. He had not been cured, it is true, but had been very much benefited, so much so that he seemed well pleased. His knees were first placed in plaster-of-Paris splints, and he received hypodermic injections of sulphate of atropia. Improvement was immediate and marked. After a week or ten days the plaster dressings were removed, and the joints covered with the emplastrum ammoniaci cum hydrargyri. Sulphate of atropia continued. A goodly amount of improvement had manifested itself.

CHRONIC DYSENTERY.

Cases of chronic dysentery such as obtain in the course of phthisis or the ordinary cases of the disease have been treated of late by administering

℞. Ol. ricini.................... ʒ iss.
Tr. opii.................... ♏xx.
M. Three times a day.

The success attending this method of treatment had been very satisfactory.

ACUTE TONSILLITIS.

When a patient suffering from this disease was admitted to the hospital one tonsil was enormously swollen, and all the symptoms indicated probable suppuration. A small blister was placed on the neck over the region of the tonsil and twenty grains of powdered guaiac administered in mucilage three times a day. On the eighth day the inflamed tonsil was very much diminished in size, and all indications of suppuration had subsided.

SYPHILIS TWENTY-THREE YEARS AFTER EXPOSURE.

A case occurred in which the initial lesion was not followed by any eruption until *twenty-three years* had elapsed. The patient then had hæmoptysis, which was followed by a syphilitic papular erythematous eruption. The eruption was disappearing under antisyphilitic treatment.

SALICYLIC ACID FOR ULCERS.

In the surgical wards this article is now used as a dressing for ulcers, wounds, etc., etc., in the proportion of ʒ i. to ℥ lxijss. of water. So far, its substitution for carbolic acid has been agreeable and quite satisfactory.

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Dr. James L. Little, of this city, has been appointed Professor of the Principles and Practice of Surgery in the Medical Department of the University of Vermont, Burlington, Vt., vice Prof. B. Howard resigned.

BELLEVUE HOSPITAL.

DIABETES MELLITUS.—CAN A DIABETIC PATIENT ELIMINATE MORE WATER THAN HE DRINKS?

A PATIENT (male) had lost 50 pounds in weight within three months, and, since his admission into the hospital had passed from 164 to 322 ounces of urine daily. Fehling's test showed that sugar was present. The point of interest was with reference to the quantity of urine passed daily, and the question arose: Can a patient eliminate more water from the body, by way of the kidneys, than he drinks?

The conviction is strong that the diabetic *may* do this; but the visiting physician remarked that, in all the cases which he had seen, where the observation had been made, the patient had taken more water than had been eliminated by the kidneys. Another exception in this man's history was absence of the voracious appetite so commonly present in this class of patients. Another casual observation made by the visiting physician is perhaps worthy of note: It is a common opinion that diabetes terminates in one of three ways—namely, either by exhaustion or consumption, or by development of pneumonia. But he had had a different experience, and that was that the kidneys undergo congestion sufficiently frequent to develop Bright's disease, and that the larger number of diabetic patients die with symptoms belonging to it. Œdema, however, does not often occur.

DYSENTERY (ACUTE) AND PROLAPSUS ANI.

A female, about 45 years of age, had a sharp attack of dysentery, and, after the disease had continued for a short time, a prolapsed condition of the mucous membrane of the lower portion of the rectum was developed. The management of this particular condition was the important feature of the case. Prolapse of the rectum is of frequent occurrence in weak children, and is known by the common expression, "the body coming down." It also occurs in connection with old hæmorrhoids.

The visiting physician remarked that his particular method of treatment of this case was applicable to all analogous ones, and was of special service in the treatment of prolapse of the rectum in children. First, injections under the mucous membrane of strychnia (sulphate), beginning with $\frac{1}{60}$ of a grain. In about five days it can be increased to $\frac{1}{30}$ of a grain, and afterwards $\frac{1}{24}$.

After making the injection return the intestine to the cavity of the pelvis, in the following manner:

Take an ordinary handkerchief, fold it across once, and in that fold place some pieces of coarsely powdered salt. If there is considerable inflammation present, the salt cannot be used. If the inflammation is only slight, dip the cloth, thus prepared, suddenly into water, and then quickly apply it to the protruding mass and give a gentle squeeze. Frequently this gentle squeezing alone causes the intestine to return, but almost invariably the slight irritation produced by the salt and cold water causes retraction, and the gut withdraws itself.

The injections of strychnia are to be repeated daily as long as the intestine protrudes. After the intestine ceases to protrude, the remedy may be thrown into the rectum by means of an ordinary syringe,

ARREST OF ERYSIPELAS BY MEANS OF INJECTIONS OF CARBOLIC ACID.

A case of the above was one of gunshot wound of the knee. Erysipelas invaded it and began to spread up and down the limb. The limb was girdled with hypodermic injections about one inch beyond the border of the erysipelatous blush. The strength of the solution used was 2 per cent. The first time the erysipelas marched over the barrier. The second line of injections arrested it, or rather the erysipelas did not spread beyond them. The house-surgeon remarked that injections of this character had evidently been of service in many cases of the same kind in his ward.

Progress of Medical Science.

A Pathognomonic Symptom of the Moribund Condition.—Dr. John Shrady, in a paper upon the "Moribund Condition," recently read before the Yorkville Medical Association of this city, maintained that the earliest, and therefore most valuable symptom of approaching death, was the up and down movement of the trachea; that the inferior laryngeal nerve, owing to a partial paralysis, or impairment of its function, is concerned in the production of this phenomenon, and sounds the first note of alarm that the medulla oblongata is invaded.

This tracheal symptom is particularly prominent in fatal cases of uræmic convulsions, opium poisoning, apoplexy, and delirium tremens; the air then ceases to stimulate the glottis, the respiratory movements are impaired, and the lungs can no longer decarbonize the blood.

In pneumonia this symptom is of especial value, anticipating as it does alarming changes in pulse and temperature; while in phthsis, the doctor has known it to be a precursor of death three weeks in advance. Its presence or absence in membranous croup should be, in his opinion, an important element in the prognosis of a given case of tracheotomy.

Anatomy of the Lymphatic System.—M. Sappey claims that after many years of active search he has found the origin of the lymphatic vessels. The appearances he describes were first seen by him in studying the pepsine glands of the mucous membrane of the skate's stomach. His method consisted in injecting the lymphatic vessels by their own fluid and then coloring the fluid, in which way the capillaries and delicate networks were not altered by a foreign substance. His results are summed up as follows:

1. The lymphatics derive their origin from a system of *capillicules*, as he calls them, and by very delicate lacunæ.
2. These capillicules communicate with the blood capillaries.
3. The lymphatic system is not only an agent of absorption, but in its primary networks gives origin to the white blood-corpuscles.
4. The connective tissue, the central nervous system, and the serous membranes are unprovided with lymphatic vessels.—*La France Méd.*, 23, 1875.

Contributions to the Pathology of Diphtheria.—Dr. Jacobi differs in so many essential points in his views concerning the pathology of diphtheria recently advanced by some of the more prominent writers upon the subject, that his able paper will be found worthy of a careful reading. The author does not regard croup and diphtheria as independent diseases. Only such differences exist as prevail generally between the sporadic and epidemic forms of the same disease. The membrane is regarded as essentially an epithelial product, and the peculiar granular amorphous material, which according to Oertel and others represents the essential element in the disease and consists of bacteria, is believed by Jacobi to consist of detritus and fat molecules which are the products of degeneration of the epithelial cells. The author descants with disfavor upon the enthusiasm with which the bacteria doctrine in diphtheria has been so generally adopted, and regards it as the product of the realistic tendencies in medicine which prevail at the present time.

The subject of diphtheria is so exhaustively treated, while at the same time it is presented in such a condensed form, that a fair abstract of the entire paper is impossible. We may, however, be permitted to refer to that interesting portion where the anatomical relations of the tissues affected in diphtheria are discussed.

Diphtheria of the mucous membrane preserves, generally speaking, certain distinct characteristics in different locations. Thus Trendelenburg found by an experiment upon a rabbit that diphtheritic matter, when transplanted from the tonsil, where it was firmly and deeply embedded in the tissue, caused in the trachea deposits which were loosely attached to the mucous membrane. Now the structure of different portions of the mucous membrane which are liable to the diphtheritic deposits presents certain important variations. The epithelium may be of the pavement, cylindrical, or ciliated variety; beneath the epithelium lymphatics may be abundant or wanting, mucous glands may be present or not, elastic fibres may be numerous or absent, etc., and it is claimed that these all bear a very important relation to the development and course of the diphtheritic membrane. The elastic tissue is affected with difficulty by either chemical or organic changes, and when destroyed is only replaced by a fibrous cicatrix. "There is no elastic tissue in the mucous membrane of the nose, a large amount in the oral cavity, and particularly in the walls of the lymph follicles of the tonsils; and such an amount in the trachea that the connective-tissue fibres are in the minority." Where the elastic tissue abounds it is to be supposed that the resistance to a deep penetrating of the diphtheritic process will be great; in case the elastic tissue becomes involved, that recovery will become difficult. The kind of epithelium which is most readily affected by the diphtheritic process is the pavement. Hence beside the prominent situation of the tonsils, the structure of this epithelium predisposes them to diphtheria. The ciliated epithelium belongs to a higher grade of organic development, and hence is less liable to be destroyed. Moreover, the muciparous follicles affect the course of the pseudo-membranes in that their secretion tends to loosen the deposit and detach it from the mucous membrane. This effect is particularly seen in the trachea and respiratory part of the Schneiderian membrane.

Especial mention is made of the vocal cords. They readily afford lodgment to foreign substances, since they form the narrowest opening in the passage to the lungs. They are covered with pavement epithelium, which is the most liable to be attacked by the diphtheritic degeneration, and they have no muciparous glands. "Thus, if there is any organ predestined for diphtheria, it is the vocal cords. Where there is not poison enough for a thorough infection, there is still enough for a local deposit. Where diphtheria has died out as an epidemic, the stray cases with limited infecting power will be known for years or decennia as so-called sporadic membranous croup, as you would speak for a generation of an occasional case of sporadic cholera, or a stray case of variola. There is not infection enough to poison the throat and larynx and blood, but just sufficient for the most favorable place, the vocal cord. No speedy removal of the diphtheritic mass can be obtained, for there are no acinous glands beneath. No general infection can spread from them, for there are no lymph-ducts to communicate it. Besides, suffocation sets in too soon for the neighboring lymph-vessels to become agents and bearers of infection in case the deposit should macerate."—*Am. Jour. of Obstetrics*, Feb., 1875.

Poisoning by Homœopathic Camphor.—Dr. George Johnson, Professor of Medicine in King's College, gives the following statement of a case under the care of Mr. Gooch. The following is Mr. G.'s history:—"About three years since I was called to see an Eton boy aged 14, who was supposed to have fainted. I found him lying on his bed, almost pulseless, and quite insensible, with his extremities cold, and his face and lips pallid. He had shortly before had his dinner, and I thought that, perhaps, he might be suffering from an attack of indigestion. Whilst I was administering stimulants, and applying hot bottles, etc., to his feet, a servant accidentally found a small bottle on his table, which was labelled, "Rubini's Homœopathic Camphor," and, thinking that he might have taken some of its contents, I gave him, with difficulty, an emetic. This had the immediate effect of causing him to vomit his dinner, which was mixed with an immense quantity of camphor, which scented the whole room most powerfully. In about half an hour he became sensible, and told me he had a cold, for which he had purchased the camphor; but, instead of dropping two or three drops on a lump of sugar, as directed, he poured it out on the sugar, and after taking it, immediately became insensible. In the evening, all the effects of the drug had gone off; he passed a good night, and had no unpleasant symptoms afterwards. He was a strong, healthy-looking boy. The bottle found in his room was very small, holding about half a drachm, and it was about half full when I saw it, so that he may have taken about fifteen drops of the solution, if an ordinary lump of sugar would hold so much."

Dr. Johnson says this is the ninth case of poisoning by the homœopathic concentrated solution of camphor which has come to his knowledge during the last two years, and suspects that if all the cases that have occurred were published, the list would be a long one, and might serve as a warning of the danger which attends the use of this highly concentrated poison.—*The British Medical Journal*, Feb. 27, 1875.

Noxious and Offensive Trades and Manufactures, and the Means of Abating the Several Nuisances from Them.—Dr. Letheby, in concluding an interesting article on the above subject, summarizes as follows his recommendations as to the best means of abating these nuisances in the manufactures which give rise to poisonous gases:

1. That all noxious and offensive operations should be carried on, as far as possible, in air-tight chambers, which can be ventilated by means of fans, or by the chimney draft.

2. That all condensable and absorbable gases and vapors should be passed through condensers and absorbents, best suited for their absorption, as water in spray, and scrubbers charged with water, oil of vitriol, or alkaline solutions.

3. That, when necessary, these scrubbers should be supplemented with special purifiers, as hydrated oxide of iron, hydrate of lime, etc.

4. That organic vapors and sulphuretted hydrogen and empyreumatic matters should be conveyed to the furnace fire and destroyed. In carrying out this part of the process, it is necessary that all steam should be

condensed from the vapors, by cooling them thoroughly before they reach the fire, as otherwise the fire is apt to be put out by them. The fire which is best suited for this purpose is that which is actually used in manufacturing operations, as special fires are very likely to be neglected; and the best place for the entrance of the noxious vapors is at the back of the ash-pit immediately under the fire-bars, as by this means a draft is secured (by closing the ash-pit), and the vapors are made to pass through the glowing coals of the fire.

5. All offensive materials should be brought to the works, or carried away from them, in properly constructed carts or tanks, which can be closely covered; and all such material when stored at the works should be kept in close tanks or chambers, ventilated, when necessary, by the scrubbers or furnace-fire. Lastly, all the operations should always be managed with care and attention to details.—*Medical Press and Circular*, February 24, 1875.

On Apoplexy from Miliary Aneurisms. — The views advanced a few years ago by Charcot and Bouchard, and which were confirmed in Germany by Zenker, viz., that spontaneous apoplexy of the brain depends on the bursting of small "miliary" aneurisms, has recently received the support of M. Roth, who has based his conclusions on eight post-mortem examinations. These aneurisms never exceed the size of a pin's head, and are often strung along on the vessels in great numbers something like beads. They occur most frequently in the corpus striatum, including the nucleus lentiformis and in the optic thalamus, next in frequency in the cortical part of the cerebrum, next in the mesencephalon and gray substance of the cerebellum, but very seldom in the white substance of the cerebrum or cerebellum.

Spontaneous recovery by thickening of the intima sometimes occurs, and ordinarily follows a rupture which does not involve the whole wall of the vessel, or only determines the effusion of a small amount of blood, but which frequently, and indeed most frequently in the corpus striatum and thalamus opticus, occasions abundant hemorrhages, in the midst of which the aneurism which is to blame is not to be found but only the place of rupture. Increase of pressure of the blood from hypertrophy of the left ventricle, without valvular insufficiency, is a frequent but not constant cause of this development, and can be anatomically demonstrated. The most important cause, however, consists in alterations of the walls of the vessels, the origin of which the author does not find, as other authors do, in a periarteritis or endarteritis, but in a state of diffuse cylindrical dilatation, with hypertrophy of the wall of the artery, and this condition he has often observed in advanced age in the artery of the fossa of Sylvius and its branches, and also in other arteries of the body. There now follows, when the process is much advanced, a shrinking of the media, accompanied in some cases by amyloid degeneration of the muscular coat. Subsequently, as a result of this shrinking, the circumscribed protrusions occur, and not until this period do we have the thickening of the intima or adventitia, constituting endoperiarteritis, which in some measure compensates for the shrinkage of the median coat. — *Correspondenzbl. f. Schweitzer Aerzte*, *No.* 6, 1874. — *Berl. Klin. Wochenschr.*, Feb. 22, 1875.

Nematoid Hæmatozoa.—In the Annual Report of the Sanitary Commissioner to the Government of India, there is an article on the above subject, by Staff-Surgeon T. R. Lewis, in continuation of his previous observations. He calls attention to two points: 1. The chief reasons for the belief that chyluria and the elephantoid state of the tissues are associated with the presence of a microscopic hæmatozoon; and 2. In what manner, such connection being satisfactorily established, this fact can aid us in offering an explanation of the evidence we possess that the disease is due to a mechanical interruption to the flow of the nutritive fluids in the capillaries and lymphatics.

With regard to the first point, detailed histories of a number of persons affected in this manner have been published by Dr. L., and in all the *filaria sanguinis hominis* has been detected. He has traced the *filariæ* to the blood directly in eleven individuals, and has detected them in one or other of the various tissues and secretions of the body in more than thirty individuals.

With reference to the second head, our knowledge is not so exact, and almost all the inferences have to be drawn from observations made in connection with the hæmatozoon described as occurring in pariah dogs. Judging from what may be seen in these, and from data derived from those post-mortem examinations which have been made of individuals affected with this parasite, Dr. L. thinks that the interference with the flow of fluid in the lymphatic capillaries and smaller blood-vessels may not unreasonably be attributed to one or other of the following causes: (1.) To tumors produced by encysted mature entozoa along the course of the blood-vessels and lymphatics, impeding the flow of fluid in them by pressure, either directly or indirectly, by interfering with the functions of the nerves supplied to the part. (2.) To the active migration of the immature, or rather partially mature, parasite, the act of perforating the tissues—nervous or vascular—producing more or less permanent lesions. (3). To the activity of the liberated embryos in the capillaries, causing rupture of the delicate walls of these channels, in which possibly ova may have collected, owing to their size, or an aggregation of active embryos taken place, either accidentally or by the parent having migrated to the capillary termination of a blood-vessel, and there given birth to a brood of microscopic blood-worms. The walls of the capillaries once having given way, the embryos pass into the adjacent lymph channels, whose extremely delicate boundaries offer practically no impediment to the further progress of such active organisms.—*The Doctor*, March 1, 1875.

Absence of the Corpus Callosum, with Unimpaired Intelligence.—The following anomalies were observed by Professor Malinverni in the brain of a man who died at the age of forty, and whose mental faculties during life had been in full vigor. There was the proper proportion between the gray and the white substances, but the weight of the brain was only about 32 ounces. In external appearance the convolutions of the brain were normal, excepting that inferiorly they were less pronounced. The corpus callosum, septum lucidum, and processus cristatus of Rolando were entirely absent. In place of the corpus callosum there were four well-marked convolutions for each hemisphere. They were formed from the convolutions of Reil, which are ordinarily small and insignificant. The lateral ventricles, owing to the absence of the septum, were immediately connected; their anterior cornua, which normally are limited by the reflected portion of the corpus callosum, now extended to the anterior extremity of the anterior lobes. The remaining cornua were normal.—*Gazz. del Clin.* —*Schmidt's Jahrb.*, 1, 1875.

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CROUP AND DIPHTHERIA.

There seems to be no abatement in the interest that attaches to the discussion of diphtheria in all parts of the world, and it has called forth such expressions of opinions from different sources, and the statements have been supported with so much good evidence, that it seems as if much permanent good will result. The points which have attracted the most attention have been the nature of the diphtheritic poison and the differential diagnosis of the disease. We have had occasion in a previous issue to allude to the first of these questions, in discussing the main arguments that support the parasitic theory of the disease, and we pointed out at that time the danger of misinterpreting the evidence brought forward by the friends of the theory. During the present year two English physicians of prominence have expressed their opinions boldly on the latter point, viz., the diagnosis of the disease; and, if their opinions be sustained, it will appear that we have often been using different terms for one and the same disease. We refer to membranous croup and laryngeal diphtheria, between which it is claimed a differential diagnosis is impossible.

These views are certainly not new to those who are familiar with the history of diphtheria; but they cannot be regarded as having at any time been favorably received by the majority of the English-speaking races. We shall endeavor to give a short resumé of the different views that have prevailed at different times, using as nearly as possible the language of the authors themselves. Bretonneau, the great pioneer in the field of diphtheria, stated distinctly that croup and diphtheria were one and the same disease, and that diphtheria was only the highest degree of the former. Since the time of Bretonneau there have been many epidemics, and an abundance of clinical facts have been collected which have been used by writers to show that there is a marked contrast between the two diseases. Great stress was laid upon the secondary affections, which it was said occurred in diphtheria, but not in croup. Virchow made the apparent differences more striking by emphasizing the fact, as he stated it, that in croup the exudation lay upon the surface of the laryngeal mucous membrane, while in diphtheria it not only covered the surface, but actually invaded the mucous membrane itself, and subsequently, from lack of nourishment, the membrane was apt to become necrotic. Wagner, on the other hand, claimed that there was no such sharp anatomical distinction between the two exudations, and they were only alike in that the exudation of croup was confined to the throat, while in diphtheria it involved the other air-passages, and he claimed that the exudation was not thrown out on the surface, but was a peculiar metamorphosis or degeneration of the superficial epithelial layers. According to his experience, when persons died of diphtheria, it almost invariably happened that the exudation in the larynx was croupous, in the sense that the exudation did not involve the mucous tissue, while in the pharynx the exudation was diphtheritic, invading the mucous membrane. At intermediate points in the air-passages he believed that the exudation was partly of the croupous form and partly of the diphtheritic. In either case he found hyperæmia of the affected part, followed by transudation of serum or by hemorrhages either into the substance of the mucous membrane or upon its surface, in connection with which there was the peculiar exudation, and also an increase in the cellular elements in the mucous membrane, and sometimes in the underlying parts.

Oertel says that croup is a simple form of inflammation, in which a fibrinous exudation occurs upon the mucous membrane, and which can never pass the bounds of the local process. He believes, however, that such an exudation,—or croup, may be induced by diphtheria, as well as by other influences of nature, such as atmospheric conditions and physical and chemical causes of irritation. He also adds that the separation of the two diseases—membranous croup and diphtheria—based on anatomical and pathological grounds, is impossible, for in the severest forms of diphtheria, such as those that are' followed by extensive paralyses, the so-called croupous exudations have been found lying freely on the surface of the mucous membrane, and that if we are to consider croup as an independent form of disease from diphtheria, then we must indicate by it a purely local inflammation of the larynx and mucous membrane, called forth by different deleterious influences of many sorts, the degree of intensity of the inflammation determining whether the exudation is to be fibrinous or only sero-purulent. The points of diagnostic importance lie, he believes, in a careful estimate of the general symptoms, the affections of the glands and kidneys. The croupous inflammation will be non-contagious and sporadic. All other diagnostic points are unreliable, and in the early stages a certain diagnosis will be impossible.

These statements are in part sustained by the authority of Nassiloff, who examined a case which bore the clinical traits of diphtheria. In raising the exudation from the surface of the mucous membrane he found that the epithelial layer beneath was intact, a condition which, as we have seen, has been held to be characteristic of the croupous form.

It thus appears that in seeking for a distinction between these diseases attention was at one time called to the clinical differences, at another time still to the histological structure of the membranes, and at another to the locality of the diseases. And yet Bretonneau urged that there were no clinical differences; Wagner, Nassiloff, and Oertel that the exudation was alike in both; and finally, Oertel infers that laryngeal membranous croup of the idiopathic form is not to be distinguished from laryngeal diphtheria. These views obtain additional strength from the statements of Sir William Jenner and Dr. George Johnson, the physicians already alluded to.

Jenner says that diphtheria is an acute specific disease, attended by inflammation of the pharynx, and having as its result the exudation of lymph. It is a specific inflammation arising from a specific cause. This specific inflammation has a tendency to spread over the pharynx in all directions, and in rare cases to the œsophagus and stomach. From the pharynx it may spread down into the trachea and bronchi, so that not infrequently membranous inflammation of the larynx is found. But this membranous inflammation of the larynx can in no way be distinguished from membranous croup, as far as its anatomical characters are concerned. And should, as sometimes happens, the diphtheritic exudation be limited to the larynx, there are still no means of distinguishing by the inspection of the parts whether the disease be membranous croup or laryngeal diphtheria. In alluding to the clinical characters of the two affections, he states that at one time he supposed that the presence of albumen in the urine would be sufficient evidence of diphtheria in a doubtful case, but he has since found that in what is known as true croup albumen may also be found. As to the fact that true or membranous croup does not spread, the same may sometimes be said of diphtheria. True croup is said to occur after exposure to cold and wet, and the same thing may often be said of diphtheria. These facts impel him to the belief that there is no such thing as a simple idiopathic membranous inflammation of the larynx. He believes, in fact, that the two diseases—croup and diphtheria—are identical. Dr. George Johnson, who has contributed a large number of interesting cases that tend to shed light on the origin of the disease, expresses himself strongly on this point in the diagnosis of this disease. He concurs with Bretonneau and Trousseau that all cases of so-called croup that are associated with the formation of membranes in the air-passages are essentially diphtheritic, and that, on the other hand, what is called inflammatory croup, or catarrhal laryngitis, never results in the formation of false membranes. He believes, therefore, that the distinction between membranous and diphtheritic croup is not a real one. The symptoms may vary somewhat, sometimes being severe and sometimes mild. In some the urine is highly albuminous, and in others quite free. The exudation also varies in extent and consistency, and there is great variation in the extent to which the mucous membrane and the submucous tissue become implicated in the morbid process. But he thinks that in all these outward manifestations we have only various manifestations of one and the same disease. Every variety may be met with during the same epidemic sometimes, in different members of the same household. He adds, in conclusion, if there be a form of membranous croup which is neither the result of a simple inflammation nor of the diphtheritic poison, he has never met with it, nor has he any reason to believe that such a one exists.

The opinions of Dr. Jacobi, of this city, have importance in this connection. In a recent paper on the subject of diphtheria, he states that whatever clinical differences there may be between a simple membranous inflammation and constitutional diphtheria, there is no anatomical difference between the membranes wherever they make their appearance, and he also says that under the same endemic and epidemic influences a case of catarrh, a case of croup, a case of diphtheria, a case of follicular inflammation of the tonsils, may appear in the same family and in the same week, and that catarrh on the one side, and diphtheria on the other, are but the starting and terminating points between which all the different shapes and forms may be registered according to their dignity, their modification depending on individual, local, endemic, and epidemic influences. The only form which is perhaps to be excluded is the necrotizing diphtheria. He also observes that there are similar differences in the clinical characters, for the affection may be local without fever, or simply febrile, or local and obstructing, or septic, etc. The fact of the exudations being confined to the surface merely, or also invading the substance of the tissue itself, is explained by the peculiar anatomical structure of the part, such as the presence or absence of follicles, elastic tissue, etc.

From this mass of authority it seems clear that we are preparing to embrace the views of the French pathologists, and erase the name membranous croup from our nomenclature of diseases, for neither clinical nor anatomical considerations would appear to entitle it to be regarded as a distinct entity. The term croup has been a most unfortunate one; for in the first place it has left confusion in the minds of the laity, who frequently do not distinguish between the false form, or spasmodic laryngitis and the membranous form, and it has also been a source of confusion to ourselves, for the term croupous, as opposed to diphtheritic, has at one time been used to describe a clinical difference, and at another an anatomical one. The general term laryngitis would doubtless cover the whole ground, and, with the varieties embraced under it, might be made to serve as a stand-point from which further discussion can go on. There are doubtless other forms of inflammation occurring in diphtheria, as the catarrhal and perhaps the gangrenous, for it can be shown that the membranous exudation may be preceded by the catarrhal form, and may perhaps end in the gangrenous one. In a large number of such cases, however, a diagnosis will be difficult, if not impossible, for the reasons that the attendant clinical phenomena vary exceedingly. Where, however, we find an idiopathic membranous inflammation in the larynx, it seems from our present stand-point to be proper to regard it as a case of diphtheria. In other cases the diagnosis will have to rest in a great measure on the inflammatory affections of the air-passages, chiefly of the pharynx, known exposure, constitutional symptoms, and the actual existence of an epidemic.

Reviews and Notices of Books.

Transactions of the Medical Society of New Jersey. 1874. Jennings & Hardham, 153 and 155 Market st., Newark, N. J.

This volume is made up of the minutes of the regular session, essays, reports of standing committees, reports of district societies, obituaries, etc. Among the items of interest we notice the Report of the Committee on Ethics and Judicial Business, to whom was referred the memorial and appeal of the twelve members expelled from the District Medical Society of the County of Hudson.

It appears that in the year 1872, twelve members of the District Medical Society for the County of Hudson were expelled.

These aggrieved members asked the Medical Society of New Jersey to reverse the decision by which they were expelled, alleging that their expulsion had been in violation of the Constitution of the District Society in several particulars.

A report accompanies the appeal, in which is set forth the injustice and unconditional procedure that form the ground of complaint, together with a history of the events preliminary to the expulsion. At the same time the appellants claim that they were expelled under an article of the Constitution of the District Medical Society, which at the last meeting of the State Society had been declared unconstitutional. Such were some of the leading considerations submitted to the State Society regarding the act of expulsion.

Those who remained under the old organization of the District Society, and sustained the expulsion of the twelve members, presented a memorial to the State Society, setting forth what they claimed to be a statement of facts, and closed their memorial by saying:

"The Society now ask the assistance of the State Medical Society in the expression of its opinion, or other recognition of this District Society, and refusal to recognize the seceders as such Society; and also such order or expression of opinion in regard to the restoration of the minute-book as may be deemed expedient, and the issuing of this Society of a duplicate charter, the original being in the possession of Dr. Culver, who declines to deliver it up to the Secretary."

Such was the desire of the memorial. The matter was referred to the Committee on Ethics and Judicial Business at the last meeting of the State Society, and in their report, published in abstract in this volume of the Transactions, is found the following language: "The evidence which was laid before the Committee discloses a long history of differences among the members of the Society, upon various matters in dispute, a consideration of which would be germane to the question raised in the memorial as to which branch of the Society shall be recognized as legitimate. The Committee believe, however, that the proceedings of the meeting of March 4th furnish all the elements necessary to a decision of the question."

The report then discusses at some length the observances and non-observances of parliamentary rules at that meeting, and closes with the following decision:

"1st. That the District Medical Society of Hudson County did not adjourn on the 4th of March, 1873, to meet in the District Attorney's room in the Court House.

"2d. The refusal of the President to entertain the appeal cannot be justified. If he believed the motion to adjourn to be in order, his refusal to put the appeal was disorderly and contumacious. If he believed it to be a nullity, his failure to preserve order, and to regulate the business of the Society, was in contempt of his constitutional duties as presiding officer.

"3d. The withdrawal of the President from the Society, with other seceding members, and their forcible and riotous abstraction of the minute-book, were acts of disorganization.

"4th. The memorialists and their associates constitute the District Medical Society for Hudson County, entitled to representation in the State Society by their delegates. They are also entitled to the book of records, and are the rightful custodians of the archives of the Society."

Signed by Drs. Wickes, Thornton, and Ryerson, Committee on Ethics and Judicial Business.

It is but fair to assume that the Committee were thorough in their investigations, and have been conscientious in their decision.

Their report bears the appearance of a document emanating from a body of men who desire to do justice in a case; and it is earnestly hoped that here will be the end of all these animosities.

"Discretion is the better part of valor," it is said; and physicians can profit by the admonition as well as the rest of mankind.

The Report of the Standing Committee upon the Medical History of the State is quite interesting, from the fact, if for no other reason, that it well illustrates how differently the same diseases are treated by different men, and also how opinions vary relative to the safety, reliability, and efficiency of certain remedial agents, and the manner of their administration.

The volume contains an engraving of the late Richard M. Cooper.

Society of the Alumni of the Medical Department of the University of Pennsylvania.—At the annual election, held March 11th, the following officers were elected: *President*, George B. Wood, M.D. *Vice-Presidents*, Jos. Carson, M.D.; Isaac Hays, M.D.; Meredith Clymer, M.D.; J. L. Atlee, M.D. *Corresponding Secretary*, R. A. Cleeman, M.D. *Treasurer*, R. E. Rogers, M.D. *Orator* for 1876, Meredith Clymer, M.D.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 18th, 1875.

Dr. S. S. Purple, President, in the Chair.

"SIGNIFICANCE OF DISTURBED ACTION AND FUNCTIONAL MURMURS OF THE HEART."

Dr. James R. Leaming read a paper upon the above subject. The following is an abstract of the paper:—

In the year 1868 he had the honor of reading a paper upon Cardiac Murmurs before the New York County Med. Society, in which he endeavored to substantiate the true diagnostic sign of mitral regurgitation, and also the significance of interventricular murmurs; and that mitral regurgitation could be certainly diagnosticated only by hearing a murmur in a certain region, as held by his friend the late Dr. Cammann.

Dr. Cammann had demonstrated by pathological investigations that the signs of mitral regurgitation, as generally taught, namely, the presence of murmurs at the apex of the heart, denominated blowing, sawing, rasping, etc., etc., were not reliable; but that the true, invariable sign was a murmur of an entirely different character, a soft murmur, a friction murmur, such as heard naturally when fluids are forced through comparatively small openings, and is *heard behind between the seventh and eighth vertebræ*, close to the spine. Dr. Cammann regarded this sign as the only reliable one, and as the only one certainly diagnostic of mitral regurgitation.

In this connection the mechanism of the first sound of the heart is evidently to become a matter of great importance in diagnosticating a large majority of cardiac murmurs, both functional and organic.

The theories concerning the origin of the first sound of the heart have been very numerous, and have been usually divided into those embracing conditions extrinsic and intrinsic to the heart.

Under the first head, the first sound of the heart has been attributed to impulse of the apex beat against the parietes of the chest; and under the second head it has been attributed to the noise produced by the contraction of the muscular fibres of the walls of the ventricles. This is the oldest theory.

2. That it is due to the sudden tension of the auriculo ventricular valves.

3. Friction of the blood against the interior of the ventricle and orifice of the large arteries.

4. Sudden elevation of the segments of the valves, caused by sudden influx of a wave of blood.

5. Transmission of the concussion produced by the current of blood.

These theories and others were simply mentioned, but only three of them would engage attention.

1. Friction of the blood in the ventricle as it passes into it from the auricle.

2. Muscular contraction of the heart itself.

3. That of vibrations of the mitral valve, caused by sudden closure and tension of the valve incident to forcing and rushing of the blood in its normal circulation.

Lastly, some have believed that the first sound is the result of all three causes combined.

As none of these theories seem to accord with all those conditions present in the organ, especially with the acoustical conditions, he had been impressed with the truth that they do not give satisfactory evidence of the real origin of the first sound, and that we must direct our attention to the heart itself for new proof.

When we come to examine the heart itself, we find within it a musical arrangement, a drum-like expansion, to which are attached tendinous chords that are held in position through the intervention of muscular fibres. It seems incredible that such admirable conditions for producing sound vibration should have been so long overlooked by so many able observers as the most probable cause for the first sound of the heart. That the first sound is produced by the vibrations of the *chordæ tendineæ* is a reasonable position to take, and if the doctrine can be proved by pathological evidence it will very much simplify our investigations. If plastic lymph be exuded upon the surface of the valves, and at the same time the *chordæ tendineæ* are shortened and thickened by the presence of plastic lymph, or glued down upon the surface of the valves so as to prevent vibration, and then, if the first sound is altered or murmurs abolished, it must be that the proof is sufficient that they are the parts directly concerned in the production of the first sound.

The following cases were offered as supplying such evidence:

Case I.—Male, 42 years of age. During the last ten years has been dissipated; has had syphilis; had rheumatism eight years ago, and was kept in bed at that time two weeks, and has been troubled more or less since with rheumatic pains. He was as well as usual up to two years ago, when his appetite began to fail; began to vomit in the morning; weight declined from 190 lbs. to 149 lbs. He soon began to suffer from momentary attacks of unconsciousness, without falling, which continued for a number of years. During these attacks his pulse would gradually grow weaker and weaker, and finally cease. Respiration would be suspended at the same time. When he first saw the man in one of these attacks the interval of suspension of respiration and heart-beat was so long that he anxiously looked into his face to see if he were not dead. Then of a sudden a full inspiration would come, and the heart would begin to throb and continue for forty-five beats, and then cease as before.

The patient also became the subject of *petit mal*, and his epileptiform seizures came irrespective of his attacks of heart cessation.

Upon auscultation no fault in respiration was detected, and there was only a slight systolic, cardiac murmur indicative of aortic obstruction.

The sound attending the contraction of the heart, however, was peculiar, and was as if no blood was forced into the aorta by the ventricular contraction. By careful counting the exact time of heart rest, it was found to be sixteen seconds.

The heart also beat in a peculiar manner, and the area of apex beat was variable. The impulse against the chest walls was found at different times, in different places, over a space of an inch and a half in extent. Intermissions in the heart-beat occurred afterwards of extraordinary length, the chin would drop, and the friends would be fully of the opinion that the man was dead; but he would recover from these conditions of unconsciousness, and his pulse resume its accustomed rapidity, namely, twenty-five beats to the minute. His condition remained unchanged for some time, both as regards signs and symptoms.

This man finally recovered to such an extent that his pulse ran up to fifty-two beats in the minute, and continued without intermission, and he was able to walk to the office of Dr. Cammann, some little distance from his own house. Dr. Cammann expressed the opinion that the patient had a systolic obstructive murmur, with hypertrophy of the heart; but believed the peculiar symptoms present were due to indigestion.

In Oct., 1861, the patient was taken ill again, suffered from dyspnœa, and the heart labored with only obscure physical signs.

Death occurred Nov. 26, 1861.

Post-mortem revealed complete adhesion of the pericardium to the heart, although the adhesions were somewhat firmer in some places than in others. The heart was largely hypertrophied; the curtains of the aortic valves were thickened, shortened, and incompetent, as proven by the water test.

The mitral valves were glued together; there was marked stenosis, and the opening was very small. The valve chords were thickened and covered with plastic lymph, white and glistening.

Case II.—Female, æt. 23 years. In the case of this woman there was found a systolic murmur most distinct over the region of the aortic valves, and also a diastolic murmur. Diagnosis was aortic obstruction and regurgitation, with hypertrophy of the left ventricle. There were casts and albumen in the urine.

Post-mortem.—Kidneys—in a condition of advanced Bright's disease. Heart—hypertrophy most marked in left ventricle. Aortic valves thickened and shortened. The mitral-valves, however, presented the notable feature. There was no sign of disease of this valve during life, but upon *post-mortem* the valve was found *diminished in size, thickened by plastic lymph, white and opaque, the edges of the curtain narrowed and the orifice very much narrowed. The chordæ tendineæ were shortened and thickened, and the papillary muscles were also thickened to a noticeable extent.*

Case III.—This case was reported, together with the specimen, at the N. Y. Pathological Society, in 1871, by Dr. Loomis. The report can be found in The Medical Record for that year.

The patient was a male, 32 years of age. Had hereditary pulmonary phthisis. Had an attack of acute articular rheumatism when he was 17 years of age. From that attack he made a good recovery. Suffered no special inconvenience from that time onward, except that tobacco would cause him to suffer severely from palpitation of the heart. Some cough and expectoration of purulent and whitish material. Cough distressing at night. After a time sputa streaked with blood. One day a paroxysm of cough came on, and was attended by hæmoptysis. Loss of appetite followed soon after, night-sweats came on, and emaciation. Insomnia and restlessness. Pulse about 80, regular, but quite feeble. Respiration somewhat hurried, but easily performed.

Heart action regular, but feeble, and apex beat in fifth intercostal space, and upon a level with the nipple. *No murmurs* could be *detected.* He suddenly became unconscious, fell from his chair, lingered for a short time, and died. *Post-mortem* revealed embolism of the middle cerebral artery and softening of brain tissue.

Heart—Weight 14 oz. Clots in the cavities on both sides. Muscular tissue relaxed. *Stenosis at the mitral orifice, and some shortening of the chordæ tendineæ.* In the anterior portion of the valve there was a bony mass, which occluded that portion of the orifice. Upon the auricular aspect the surface of the valve was ulcerated, the bony matter laid bare, and vegetations were also present. The pulmonary and tricuspid valves were normal. Moderate thickening at the base of the aorta.

The first case is full of instruction as regards functional disturbances of the heart. It shows to us that regular systolic contraction can occur, when the auriculo-ventricular opening is contracted, as in stenosis, without producing any sound. This could be demonstrated in that case by careful auscultation, for the interval of intermission permitted such an examination as was necessary to make the demonstration.

Reference was here made to experiments performed by various experimenters, in which it has been shown that when blood is arrested from entering the cavities of the heart all sounds are extinguished, and that they return with the admission of the blood, and also that the first sound is produced when only a small quantity of blood is permitted to enter the ventricles. The fact that the first sound disappears under these circumstances, and all murmurs connected with the first sound also disappear, was regarded as an indication of sound vibrations, and is equally convincing as the hooking up of the curtain of the aortic valve is proof of the mechanism of the second sound of the heart.

The disappearance of the sound in the experiments performed, and the absence of murmurs in the first case, was because the mechanism of the first sound depends upon the situation and condition of the mitral valve and chordæ tendineæ.

The second case was under the observation of Dr. Sprague for several months, who is a careful and competent auscultator. No murmurs were detected before death, and at autopsy the conditions described were found.

The third case is also confirmatory proof, for the reason that no murmurs could be detected, and yet there were present stenosis of the mitral orifice in a marked degree, and shortening and thickening of the chordæ tendineæ.

One of the points made in his paper, read in 1868, was that the presystolic murmur, also called mitral direct, is one of the interventricular murmurs, and not caused by blood forced through the contracted opening due to mitral stenosis.

His arguments were that the auricle was not able to force blood through the contracted opening in such a manner as to produce a sound that may be heard through the chest-wall, even when the ventricle is empty, much less when it is filled with blood.

Another argument was, that this murmur does not occur at the time of the contraction of the auricle.

According to the best authorities, the contraction of the auricle is instantaneous, quick, and by one it is described as explosive, while the murmur is of considerable length. Again, this murmur is not of the quality of a sound produced by forcing blood through a narrow opening. But all argument becomes unnecessary in the presence of the foregoing histories and pathological specimens.

Cases were then referred to, as reported by Dr. Hamilton, of Maryland, which had a similar clinical history and pathological lesion as the cases already reported by himself, namely, no abnormal sounds indicating mitral disease before death, but at *post-mortem* extensive mitral lesions were found. Several cases of like character were referred to as reported by Prof. Dickinson and others, in which the proof seemed clear, that unless the chordæ tendineæ were in a condition favorable to produce sound, no murmurs were heard.

Bristow has reported cases in which, on the contrary, a systolic murmur was heard, and was supposed to be diagnostic of mitral regurgitation; but *post-mortem* revealed the fact that no disease of the mitral valves, orifice, or chordæ tendineæ was present.

All these murmurs may be conveniently tabulated acoustically as follows:

1. Valvular, indicative of organic disease.
2. Interventricular, both organic and functional.

Under this head we may have the organic functional and the inorganic functional.

The sound in the valvular murmurs is a friction murmur, and the interventricular murmurs are distinctly chord vibrations. There is as great a difference existing between these murmurs as there is between a whistle and the voice.

The interventricular murmurs are musical, and are almost always due to vibrations of the chordæ tendineæ usually under extraordinary tension, and the murmur is caused by rush of blood over them. They resemble every degree of pitch and tone.

Vegetations attached to the edges of the valve may produce a musical murmur; but these are very rare. The exact idea of the friction sound can be obtained by pressing upon the bulb of a rubber syringe with force, while there is a fissure in the bulb; the escape of the water through the fissure produces the sound.

It is in the same manner that the friction murmur is produced by the rush of blood through a contracted opening and over the chordæ tendineæ. When hypertrophy of the ventricle takes place there will be more or less irregular tension of the chordæ tendineæ present, and in consequence we have a blurring of the murmur, and also vibrations of string, under irregular tension, and the blood is forced against irregularly contracting muscular fibres. Cardiac murmurs are heard best over the orifices where the valves are situated, or in the direction of the vibrating column of blood. This is applicable to all the murmurs.

In mitral regurgitation the column of blood impinges against the wall of the ventricle, the impulse is communicated to the œsophagus, and through that to the intervertebral substance, and then conducted to the ear. It is heard between the seventh and eighth dorsal vertebræ, and the discovery of this sound and its significance and reliability belongs to Dr. Cammann. This characteristic murmur, heard in this situation, is an unfailing sign of mitral regurgitation. This murmur is not heard in front when the valve is diseased, or at least only in exceptional cases.

He then reported a case which he believed to illustrate the possibility that it may be heard in front.

The case was one in which there was a systolic murmur at the apex beat, a soft, gushing murmur heard more to the left than to the right, and heard behind between the seventh and eighth dorsal vertebræ. At that point the murmur was *shot* into the ear, as it were. It was also heard at the inner and lower angle of the scapula. One year after the first examination this murmur remained unchanged, and had the same quality in front and behind. It had none of the elements usually described as diagnostic of mitral murmurs. He believed that it was congenital, and existed without disease of the mitral valve. He also believed that many of these murmurs are not organic in the sense that the term organic murmur of the heart is generally used. Interventricular murmurs may be considered functional, inasmuch as they have their mechanism in the vibrations of the chordæ tendineæ, which are unchanged by disease. These murmurs may differ in pitch, according to the degree of the tension of the individual tendons, and the force of the heart's contraction.

The causes of difference in degrees of tension and force of heart contraction may be various. They may be dependent upon disturbed nerve power as well as organic change; hence may be produced by anæmia, disturbances of the liver and stomach; by sympathy with brain disease, and may depend upon the influence of tobacco, coffee, tea, etc., etc., which have an influence upon the heart. Functional murmurs proper do not signify danger or death. They are alarming to the patient however, and it is no wonder that they are.

Intermittent pulse has been alluded to in the books as indicative of heart disease. But this sign of itself is no evidence of heart disease; but it is almost certain evidence of indigestion. It is true, heart disease may be productive of indigestion, but functional disturbances of the heart dependent upon dyspepsia are very much the more common.

Children commonly have intermittent pulse, especially those who are allowed very stimulating food. When the food becomes digested these intermissions will disappear. In the adult, intermissions may follow a wine dinner, with tobacco, especially during sleep.

The cause of rhythmic movements of the heart is a debatable question. That it is within the heart there can scarcely be any doubt, because the heart can be separated from the body in some of the animals, and its beats will go with the same rhythm as before removal. Still, the presence of blood and its vital connections with the body are probably essential to its perfect action.

The acoustic properties of the chest have not been studied as their importance demands. The difficulty of hearing sounds in the chest of the hunchback has been long recognized, and has been explained in almost every manner, except by recognizing the true cause, namely, that the acoustic properties of the chest have been almost entirely destroyed. In this connection he referred to the indistinctness or obliteration of cardiac murmurs, which is frequently met with when other diseases are present within the thorax, such as pneumonia and pleurisy. Why do cardiac murmurs disappear during the course of a new pleurisy? He had been led to the conclusion that it was in obedience to some physical law; for when the effusion of pleurisy or pneumonia is removed the cardiac murmurs will return. It is probably within the experience of every physician to have seen cases in which there was evidence of cardiac disease during the progress of some other thoracic disease, but no cardiac murmurs could be detected by the most careful examination; yet when such disease has disappeared the murmurs have been found.

It has been supposed that in such cases the disappearance of the murmurs was due to feebleness of heart action, but that theory he rejected; for he had seen cases in which there was thoracic disease and the pulse was *strong*, and the murmurs disappeared in the same manner as in other cases with a pulse of a different character.

The philosophical explanation of this phenomenon occurred to him in the winter of 1864, and he has now come to regard the chest as a musical chamber, which may be represented by the cavity of a violin.

When the instrument is strung, tuned, and in order, its acoustic properties may be demonstrated perfectly. If a watch be placed within or in such a violin, and the ear applied to the surface of such a chamber, every sound is heard with the most perfect clearness; but if the chamber is gradually filled with sand, while the ear still remains in contact with the surface, it will be found that the sounds will become gradually more and more muffled, and finally disappear. The observance of such phenomena is valuable, because they depend upon well-established acoustic laws. The application of the same laws in conducting our observations of phenomena within the chamber of the chest are equally scientific, and may add to our stock of scientific medicine, which is something we so much need.

At the close of the reading of the paper, Dr. J. C. Peters made a few remarks, and moved that a committee be appointed to report upon the subject-matter of the paper read by Dr. Leaming.

Discussion was continued by Drs. Hudson, O'Sullivan, and Flint.

The President appointed as committee, Drs. J. C. Peters, Flint, and Hudson.

Correspondence.

RELATIVE SITUATION OF CORPUS LUTEUM AND PLACENTA.

To the Editor of The Medical Record.

Dear Sir:—I desire to ask through your columns whether any of your readers have observed any constant relation between the site of the placenta and the ovary in which the corpus luteum of pregnancy is situated? In four cases where death has taken place during pregnancy, or shortly after, I have in each case remarked that the placenta was situated on the opposite side from the ovary with the corpus luteum. Of two of these I have a memorandum of this fact alone; in one of the other two the corpus luteum was in the left ovary, while in the other it was in that of the right side, the placenta being in both cases on the opposite wall of the uterus.

I am, very truly,
J. H. Raymond.

Brooklyn, March 10, 1875.

ON THE TREATMENT OF EPILEPSY, BOTH NOCTURNAL AND DIURNAL, WITH THE BROMIDE TREATMENT.

To the Editor of The Medical Record.

Sir:—I notice a communication in The Medical Record of March 6, 1875, from Dr. James Gilliam La Roe, Jr., on his experience in treating a case of nocturnal epilepsy with bromide of potassium. I was for three years connected with the hospital for the insane at Mount Pleasant, Iowa, where we had quite a number of epileptics under treatment.

We never made any distinction in the treatment of the two forms of the disorder. We first turned our attention to the digestive apparatus, getting it into perfect order; keeping the patient upon light diet, and excluding all meats. We then commenced with Dr. Brown-Séquard's bromide ammonium mixture, (the composition of which is known to the profession), beginning with ʒ i. ter die, and gradually increasing until "brominism" was produced; the convulsions generally ceased at this point, and did not again return so long as the treatment was continued. One patient we gave as high as ʒ iv. of the mixture three times daily ere the convulsions ceased to recur.

When the eruption appeared (which usually follows the long-continued use of bromide of potassium), we lessened the dose.

We had one patient suffering from nocturnal epilepsy, who was quite violently insane when admitted to the hospital, but became quiet and free from epileptic paroxysms under the bromide treatment.

In all cases of epilepsy I regard it of eminent importance that the digestion of the patient be carefully observed and taken care of.

Truly yours,
John H. Kulp, M.D.

Davenport, Iowa, March 11, 1875.

DEFECTS IN BENNETT'S SPRAY PRODUCERS.

To the Editor of The Medical Record.

Dear Sir:—Will you allow me through your columns to say a word in explanation to those who may have purchased my spray syringes and are not able to make them work well.

In The Record for Sept. 15, last, I gave a description and diagram of some instruments for spraying the larynx and posterior nares, made for me by Messrs. Tiemann & Co., according to a model designed and furnished by myself. These instruments gave such satisfaction that I thought it my duty to give them to the profession at large, which I did as above mentioned. During the past winter I have received several letters from physicians in different parts of the country, in which complaint is made that said instruments do not work well, *i.e.*, that instead of producing a fine spray, the solution with which they are charged comes from them in an unbroken stream or in jets. On calling at the manufacturers' and examining the syringes they have on hand, I find that through an oversight on the part of the workman, in some of the instruments the *long inside tube* does not reach to the end of the nozzle, and in others the *short inside tube*, which connects with the cylinder, is surrounded by a plug of hard rubber that completely occludes the calibre of the stem (outside tube) of the syringe. I cannot better explain matters than by saying that the instruments here alluded to are nothing more nor less than Richardson's atomizer, but of different forms from the original, that is, they are made on the principle of a tube within a tube. By consulting the diagram in The Record of Sept. 15. any physician will be able to remedy the faulty construction of the syringe he may possess; but I am authorized to say to those who find it convenient to return their instruments to the makers, that they will be put in order at once. In conclusion, I beg to state that particular attention should be paid by the practitioner himself to the size of the hole in the tip of the nozzle; if too large or too small, a satisfactory shower of spray cannot be obtained.

Very respectfully,
W. H. Bennett, M.D.

SPECTRUM ANALYSIS AGAIN.

To the Editor of the Medical Record.

Sir:—I regret that I am obliged to decline further discussion of certain points on spectrum analysis with Dr. Watermann, as I find myself unable to cope with an opponent who systematically and persistently misquotes me, misquotes himself, and misquotes authorities to whom he refers in support of his views. I complained of this in my last letter (Feb. 20), and naturally supposed that Dr. W. would exercise more care in this respect in subsequent writings. I am again disappointed. In his letter of March 20, Dr. W. denies using the word "evidently" in a certain connection. If the reader will turn to Dr. W.'s first reply to me, Record, Jan. 30, p. 84, third paragraph, he will find this word exactly as I quoted it in mine of Feb. 20.

In the Record of March 20, p. 213, second column, fourth paragraph, Dr. W. misquotes both my *words* and *meaning*, as reference to Record of Nov. 16, 1874, p. 605, last three lines of second paragraph, will show.

In Dr. W.'s reference (March 20) to what he appears to consider a complimentary notice of himself in the *Jahresbericht*, he *inaccurately* attributes it to *Virchow*. The paragraph in question appears under the name of

Ackermann, Virchow being simply the editor of the journal. In quoting this paragraph, however, he omits the last *two words*, which, separated by a period from the preceding sentence (the one quoted), constitute the really important part of Ackermann's commentary. These words are "Nichts Neues," a phrase sufficiently expressive to those in the habit of reading the *Jahresbericht*.

HENRY G. PIFFARD, M.D.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from March 21st to March 27th, 1875.

DEWITT, C., Assistant Surgeon.—Granted leave of absence for one month. S. O. 37, Department of the South, March 22, 1875.

HOFF, ALEX., Assistant Surgeon.—Relieved from duty at Fort Columbus, N. Y. H., and to take station in New York City during his duty with the Army Medical Board. S. O. 50, A. G. O., March 24, 1875.

WIGGIN, A. W., Assistant Surgeon.—Died at Fort Stevens, Oregon, March 7, 1875.

Medical Items and News.

PROFESSOR VON ZIEMSSEN, the editor of the new *Cyclopedia of Medicine*, which is now being translated into English, has had a severe attack of typhoid fever, which obliged him to try the air of Montreux. His return to Munich was expected towards the close of March.

THE NEW JERSEY STATE MEDICAL SOCIETY will hold its annual meeting at Atlantic City, on the 25th of May.

RECTAL EXPLORATION.—Dr. Weir writes: "I unintentionally omitted to state, in quoting the case of Dr. Sabine, in the article on Intra-Rectal Exploration, (RECORD of March 20th), that the cause of death was pneumonia. Will you be kind enough to correct this in your next issue, as otherwise it might be inferred that the fatal result was due to the exploration."

SEVEN young women have graduated M.D. at the Boston University School of Medicine.

IRON will be more carefully administered now; a patient who recently took a large quantity was caught stealing.

RECEPTION HOSPITAL FOR LYING-IN CASES.—On Saturday, the 27th, a resolution offered by Thomas S. Brennan, at the meeting of the Commissioners of Charities and Correction, providing a suitable place for women in labor until they can be transferred to the wards of the Charity Hospital on Blackwell's Island, was adopted. Application is to be made to the Board of Apportionment for money to carry out this plan.

RECEPTION HOSPITAL ON NINETY-NINTH STREET.—The Commissioners have decided to continue the Reception Hospital at Ninety-ninth street and Tenth avenue, there being no other hospital in the upper portion of the city.

UNIVERSITY OF LOUISIANA.—Forty-one students have just been graduated from the Medical Department of the University of Louisiana.

JOSEPH H. RAY, M.D., of Brooklyn, died on the 23d of March.

NEW YORK ACADEMY OF MEDICINE.—The Committee on Ways and Means of the Academy of Medicine have received of Mrs. Hartley (daughter of the late S. Pomeroy White, M.D.), a contribution of $250 to the "Building Fund." This is a tribute to the memory of her father, who was an "original Fellow."

A PRIZE ESSAY.—Dr. R. N. Taylor, of Maysville, Ky., won the prize offered by John P. Morton & Co., publishers, of Louisville, Ky., for the best thesis on some subject connected with materia medica. The title of his paper was "The Physiological Action of Gelseminum Sempervirens."

A REMEDY FOR BURNS.—Dr. S. Galentine, of Neenah, Wisconsin, treats burns very successfully by painting them with a solution of subsulphate of iron in water. By that means a healthy scab is formed, which remains until the healing process is complete.

"PUNCH" ON HOLLOWAY'S ASYLUM.—*Punch* furnishes this inscription for the front of the idiot asylum founded by Mr. Holloway, who made his fortune in "patent medicines:"—

> "Not oft is fate so just—see wealth restored
> Back to the simple source from which it poured."

TRICHINÆ, according to a Nordhausen paper, have recently been found, on microscopic examination, for the first time, in the flesh of a wild boar. Hitherto it has been believed that these parasites infected the domestic pig alone.

SALICYLIC ACID sells in this city for eighty cents per ounce.

TWIN PREGNANCY AFTER OVARIOTOMY.—In July of 1871, Professor Marzolo, of Padua, performed ovariotomy successfully upon a woman of thirty-four, removing the left ovary. At the end of the year she became pregnant, and was delivered at term of a girl, who presented by the head, and a few minutes later of a boy, who presented by the breech. Labor lasted but two hours.—*Edin. Med. Jour.*, Jan. 1874,—*Rundschau*, Dec. 1874.

MEDICAL INSPECTOR DELAVAN BLOODGOOD, U.S.N., has been assigned to duty at the Brooklyn Navy Yard, and Surgeon C. J. S. Wells to the iron-clad steamer "Roanoke," in New York harbor. Medical Director F. M. Gunnell, lately on special duty at the New York Station, is ordered as member of the Naval Medical Examining Board at Washington, D.C. The Examining Board will continue in session through the next two or three months, for the convenience of candidates for admission to the Medical Corps of the Navy who have but recently obtained their degrees, and who may desire a bit of "coaching" before coming up to the work.

WEEKLY BULLETIN OF MEETINGS OF SOCIETIES.

Monday, April 5.—Medico-Chirurgical Society, Morrisania Medical Society, N. Y. Neurological Society; Pathological Society, Brooklyn.

Tuesday, April 6.—N. Y. Obstetrical Society, East River Medical Assoc., N. Y. Dermatological Soc. "On the Etiology of Infantile Eczema," by Dr. R. W. Taylor.

Thursday, April 8.—N. Y. Laryngological Society, Brooklyn Pathological Section, Jersey City Pathological Society.

Friday, April 9.—Medical Library and Journal Assoc., Harlem Medical Assoc.

Saturday, April 10.—N. Y. Medical and Surgical Society.

Original Communications.

SUCCESSFUL MANAGEMENT OF AN OPIUM HABIT, MORPHIA HYPODERMICALLY, OF NEARLY SEVEN YEARS' DURATION.

By J. B. MATTISON, M.D.,

CHESTER, N. J.

We appear, once again, before the profession with the closing details of a case of more than ordinary interest, which, on two occasions, has been presented to the fraternity: once[*] detailing the patient's initial history and proposed plan of therapeutical operations looking to his disenthralment from a most debasing servitude of mind and body, and, subsequently,[†] citing the indifferent success attending our effort, owing, in some measure, to circumstances beyond control.

We have now the pleasure of placing on record the complete success crowning a second endeavor, and as it contains several features of professional interest, and bearing somewhat on the mooted question of sudden or gradual withdrawal, we opine its presentation will not be unacceptable.

Chas. Dimond, whose history as an excessive consumer of morphia hypodermically was narrated through the columns of the *Med. and Surg. Reporter*—vide No. 821—applied to us Dec. 18th. 1873, for relief from the most atrocious attack of tic-douloureux we ever witnessed, utterly defying every remedial measure brought to bear upon it during several days' medication, and which gave way finally, and we hope forever, to a single deep injection of chloroform, after the manner first suggested and practised by Prof. Bartholow, of Cincinnati, and details of which we reported, in full, in this journal for May 1st.

When we first made an attempt at this man's reformation, his average consumption of morphia was grs. v. per diem. After its failure, he returned to the practice of his baneful habit more ardently than ever, soon doubling his former quantity, and when he presented himself with his trifacial trouble it was still larger, his weekly consumption being from one to two drachms, subcutaneously.

Notwithstanding the severity of his neurotic suffering, he expressed a desire to make, once more, an effort towards bursting the bonds that bound him, and, accordingly, passed into our possession his syringe; but the pain being so urgent, such an attempt was not to be entertained for a moment.

For four days subsequently we essayed a variety of treatment looking to his relief, using the morphia in truly *heroic* doses, reaching as high as *five grains* at a *single* injection, with no apparent effect whatever, and only succeeded in putting a quietus upon it by the injection of chloroform, as before mentioned.

This was followed in four minutes by a highly soporific condition, which continued for several hours, during which it occurred to us, could we prescribe anything which would have the effect of *prolonging* this state we might make a break in upon his opium habit which would prove highly advantageous so far as an attempt at its withdrawal was concerned.

Nothing suggested itself as more likely to accomplish this object than chlor. hyd.; for if it be true, as claimed, that the peculiar hypnotic virtues of this drug are due to the elimination of chloroform, certainly it would seem to be the most eligible agent under the circumstances, inasmuch as it could but intensify and prolong the action of the chloroform subcutaneously administered.

Accordingly, the patient was directed to bed, and chloral ordered in scruple doses every half hour until its soporific properties were decided. Forty grains sufficed to procure a sleep of five hours' duration. The same quantity, dose, and interval as before, was again administered, when he fell into a profound slumber which continued for ten hours.

On awaking he soon became clamorous for his morphine—an interval of nearly forty-eight hours having elapsed since an injection—but as we had determined to ascertain the degree of success attending a second attempt at its withdrawal, his demand was not acceded to; but, in lieu thereof, strych. sulph. gr. $\frac{1}{48}$ was injected hypodermically, ter die, with the impression on the part of the patient that the injections consisted of morphia in reduced amount, an idea of which, of course, we were exceedingly careful not to disabuse him. The dose of strychnia was given in *two* injections, for the quantity of *liquid* injected was an object of prime importance with him, and, as showing the effect of treatment purely psychical, it may be noted that, time and again after giving him his usual allowance, and he was still unsatisfied, an injection of *aqua pura*, clandestinely administered, would exercise, seemingly, a wonderfully potent power for good, and quiet all his clamors, for the time being at least.

Apart from the moral effect of the strychnia injections, the powerful tonic properties of this drug in toning up his nervous system after the prolonged opium debauch, and in eradicating a strongly marked neurotic taint, were brought into play, and, we think, with signally good results.

In addition, we administered subcutaneously, at bedtime, atrop. sulph. gr. $\frac{1}{60}$ to $\frac{1}{30}$, according to the sciatic pain, restlessness, and other varying circumstances of his condition, which yielded effects very satisfactory, and of which we shall speak more in detail hereafter.

Conjoined with this hypodermic medication, patient was placed upon the use of the following prescription:

℞. Magnes. sulphas......... ℥ss.
Mangan. " .... ʒij.
Fer. " .... ℈ij.
Quin. " .... ℈ij.
Acid. sulph. dil. .... ℥ss.
Aq. ad. .... ℥viij.

M. S. Tablespoonful in wine-glass of water ter die, and a nourishing diet, beef-tea especially ordered.

To procure sleep chlor. hyd. was prescribed in a minimum dose of gr. xxx., and this quantity pushed gr. x. at a dose, as often as required during the night, until the object aimed at was accomplished.

The above tonic was soon set aside, proving ineligible on account of its bulk, and Wyeth's elix. fer. quin. et strych. substituted in ʒij. doses (strych. gr. $\frac{1}{30}$) thrice daily, continuing strychnia and atropia hypodermically as before.

After using this tonic one week he was ordered:

℞. Quin. sulphas ....gr. ij.
Tinct. fer. chlor ....ʒss.
Liq. potass. arsen........gtt. x.

M. S. Take at a dose, diluted, after each meal, the other remedies to be continued.

Such was the general plan of treatment pursued—a full nourishing diet, with the most efficient of nerve-tonics hypodermically and per via naturales, and it culminated, after a persistent prosecution of *four weeks'* duration, in a consummation as complete and satisfactory as could have been wished for.

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[*] M. and S. R., No. 821.

[†] Ibid., No. 905.

Under the above regimen our patient gained strength rapidly; his appetite became actually voracious, and he increased in weight markedly, averaging a fraction less than five pounds per week. No less gratifying was the improved change in his *moral* demeanor; in fact, he seemed to undergo a complete transformation, so that at the expiration of the time mentioned "old things had passed away," and he stood forth a *new* man, thoroughly disenthralled from a most degrading bondage, and fully freed from a physical infirmity which for a three-quarter score of years it had been his painful lot to endure.

A few remarks somewhat in extenso on some points connected with this case may not be altogether devoid of interest. A most decided obstacle to the withdrawal of the morphia was the severe sciatic pain to which the patient had for fifteen years been subject, and which broke out in full fury soon after the relief of his trigeminal disorder. For the removal of this we employed various remedies, all of which failed us until we resorted to vesication of the main nerve involved, applying simultaneously no less than *fourteen* blisters, about three-fourths of an inch square, over the track of the nerve affected, from the point of its emergence to the popliteal space. These were allowed to remain sufficiently long to produce superficial vesication, dressed with cerat. simp., and from that date the sciatic suffering ceased as by magic, and absolutely failed to put in its appearance thereafter.

The rapid and radical relief from the cantharidal application was so notable that it demands more than a passing notice. It confirms fully the observations of Cotugno, Valleix, Anstie, and Stillé, more especially the latter, who declares "sciatica, more than other forms of neuralgia, is rebellious to this and to all forms of treatment; yet it is more amenable to methodical blistering than to any other exclusive method whatever."

Cotugno, first to use cantharides as a counter-irritant for the cure of sciatica, got to himself a wide-spread reputation for the remarkable success attending his treatment, notwithstanding his etiological idea of the disease would scarcely be considered, at this day, correct. Valleix asserts that blisters hold the highest rank in the treatment of neuralgia, and Anstie, in his classical work on this disease, while not admitting them *universally* applicable, insists that they are of the *greatest possible* service in a *large* number of instances, and observes that in sciatica we sometimes "obtain immediate success by two or three repetitions of the flying blister somewhere over the trunk of the nerve." It must not be overlooked, however, that in order to reap this striking benefit the blisters must be "flying." Any action which exercises a depletory effect, under the mistaken idea that the materies morbi can thereby be eliminated, will fail of its object; in fact, we should confidently anticipate a distinct aggravation of the sciatic suffering.

Nor must it be forgotten that in the case under consideration the patient had the benefit of what we believe to be the remedy par excellence for obstinate cases of sciatica, and we are by no means certain that in the milder cases a similar treatment would not speedily suffice for a cure, viz., strychnia hypodermically administered; and we give it as our confident opinion that the number of cases utterly unyielding will be very limited where a thorough trial of this drug, in gradually increasing quantity until moderate evidences of its toxic properties become apparent, is resorted to, conjoined with that degree of counter-irritation so strongly indorsed by Valleix, Stillé, Anstie, and others. It may be noted that in this instance the strychnia was continued for four weeks, during one week of which the tri-daily dose was equivalent to one-tenth of a grain before symptoms of strychnism manifested themselves, and then only to a limited extent.

Our patient, ignorant as to the nature of the strychnine injections, was cognizant of the atropia, which was employed with a threefold object—its anodyne property, which, inferior as a rule to morphia, has, nevertheless, a marked power for good—a quality that was appreciated and taken advantage of by our subject.

Secondly, we had previously demonstrated to our entire satisfaction—vide *Reporter*, No. 905—the notable influence of this drug in restraining excessive ephidrosial action. In this last instance its reputation in this direction was still further enhanced. The observations of Ringer especially, corroborated recently by Tidd, of Ohio, and others, leave no doubt as to the potency of belladonna, and particularly its alkaloid, in hypercutaneous secretion.

Again, in a previous use of it in this case, we found our patient rapidly relieved from an obstinately torpid intestinal condition, which was to him a source of much discomfort. The same state of affairs a second time presenting itself, the atropia fulfilled our expectation completely, its administration being soon followed by a return to normal evacuations. Trousseau claimed for belladonna the remedy par excellence in habitual constipation. He says it does not purge or produce loose stools, but only renders defecation easier. Our experience with it, in the case under observation, was strongly substantiative.

These two valuable properties of this drug, if properly taken advantage of, must largely extend the range of its therapeutical operation. Many pathological conditions will present themselves, in which one or other of them may prove exceedingly beneficial. As to other effects produced by the dose we employed —$\frac{1}{60}$ to $\frac{1}{30}$ gr.—nothing beyond marked faucial dryness and moderate pupillary dilatation was manifested.

No ill results followed the chloral, though it was given in consecutive doses of thirty, forty, fifty, and sixty grains nightly.

Markedly wide is the diversity of opinion among professional men as to the propriety of sudden or gradual withdrawal of the habitual intoxicant in these cases of opium inebriation. In this instance no less an authority than Willard Parker, at whose clinic the man was presented, advised his incarceration and the morphia shut off at once and forever. Sooner than submit to that, the patient repeatedly declared to us he would have committed self-destruction. An attempt of the kind was made by the surgeon of a New York hospital, but it "came to grief," for the man became so violent, smashing windows and the like, that the hospital authorities were glad enough to get rid of him. Corroborative of Prof. P.'s advice, Howe asserts that "'tapering off' will not result in cure."

Opposed to this opinion, among others, is Dr. Parrish, who, as superintendent of an asylum for inebriates, has a fine field for observations, and who declares that he has "no hesitation in expressing an opinion, which has settled into a fixed judgment with me, that for the class of cases with which I have had to do" (and we presume they were by no means unique), "the system of gradual reduction has answered so well that I cannot bring myself to adopt the other plan," and who gives cogent reasons therefor, and fortifies his statements by citing several cases where this plan has been followed by conspicuously good results.

In an address delivered by him before the "American Association for the Cure of Inebriates," the subject of "Opium Intoxication" is dwelt upon at length, and we refer our readers to a report of the same in the *Medical and Surgical Reporter* for November 15th and 22d, 1873.

Among other deductions from his admirable remarks, are the following:—

"To relieve the symptoms, it is desirable to avoid the shock, as it is desirable to avoid it in surgical operations.

"For this purpose the practitioner should immediately reduce the accustomed supply to the minimum dose which will meet this condition.

"When the minimum is reached, the suffering of the patient begins, and then the practice should be to give tone to the nervous system, as the opium stimulus is withdrawn. The reduction should be in minute quantities, and the tonic doses full and persistent.

"The moral sentiment, the confidence and courage of the patient, should at all times be kept up to the attainable degree.

"Such a course will almost always secure the desired result."

The above we believe to be the plan of treatment best adapted to a large majority of cases. True, we cannot support it from personal experience, by reference to a single case so managed, but it appeals itself (in our judgment) most strongly to "common sense," which is better than any theory, and besides, has the indorsement of those whose *successful* experience entitles them to the very highest respect and belief.

From a superficial view, a plan of treatment directly the reverse of what we advocate answered a perfect purpose in the case under consideration, and, seemingly, our practice was rather inconsistent with our precept. Granted, but there were some unusual circumstances in this instance, which, fully explained, will make it far from inexplicable why we succeeded so well, notwithstanding a complete and immediate withdrawal of the accustomed stimulus.

In the first place, one leading indication under the gradual diminution regime—avoidance of shock—was carried out in a manner similar to its fulfilment in surgical operations, viz., by the production of anæsthesia.

The injection of the chloroform was followed in four minutes by a condition quite akin to that resulting from its moderate inhalation, which condition was prolonged to a greater or less degree, for days, by the free administration of chloral. That by this the man's perception of a desire for his opiate was blunted, we have not the slightest doubt, and this effect being produced in the *early* stages of its withdrawal, when the suffering attending the same was *keenest*, swayed the chances in his favor more heavily than they would have been at any subsequent period.

It must not be inferred, however, when this state of partial anæsthesia was no longer deemed advisable, that the inbreak upon his baneful habit was sufficiently great to enable him to wage the yet remaining battle free from pain. Far from it. On the contrary, he suffered, psychically, to an extent inconceivable save by those "in bonds, as bound with him." But having gotten thus far on his journey towards recovery, and feeling fully assured that if, by any means, he could be enabled to hold out a little longer the goal would be reached, his importunate pleadings were unheeded, and slowly but surely his "*devil*," as he styled the horrible craving, loosed its hold, until, just *twenty-one days* from the date of his last morphine injection, he shook it off altogether, and stood forth *victor*.

From the foregoing history it may safely be deduced that the opium habit, while throwing about its victims an almost irresistibly seductive influence, is one which *can* be eradicated by a proper course of therapeutical management, and the unhappy victims of this increasing vice restored to their pristine physical and psychical condition. But we reiterate that, in our opinion, this *cannot* best be done by a sudden and sweeping withdrawal of the habitual intoxicant. This course, if it be appreciated by the patient, will be very apt to give rise to a spirit of insubordination quite fatal to the success of the movement, standing, as it inevitably would, in the way of keeping up the courage and co-operation to the desired degree. Conjointly everything necessitating a physical demand for the anodyne properties of the drug, must be thoroughly removed.

Added thereto must be a hygienic circumstancing around the unfortunate devotee, aided by medication which will tend most efficiently, in every possible manner, to tone up the shattered nervous system and make amends for the setting aside of the accustomed inebriant.

THE RELATION OF THE GENERAL PRACTITIONER TO THE TREATMENT OF MENTAL DERANGEMENT—OUR ASYLUMS AND THEIR SPHERE.

By EZRA M. HUNT, M.D.,
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It is an encouraging omen that two or three of our medical colleges have invited superintendents of asylums to sprinkle in amid the course a few lectures on the subject of mental derangement. Until of late the consideration of insanity was entirely left out in the curriculum of instruction as to medical practice. The young practitioner actually entered upon his profession with demoralized views as to his relation to the disease. He regarded his duty as merely perfunctory. He himself was not responsible for intelligent treatment, but only expected to give opinion as to the need and time for transfer to asylum "for treatment."

Now, whether he will or not, the early treatment of necessity falls upon the average medical practitioner, and not upon institutional experts. A few days, and sometimes weeks, are necessary to determine the degree of insanity, or the need of transfer, or the case itself is gradual in development. Some delay often must occur in arranging change, unless the attack is of the exceptional character of raving mania. Yet so important are these days that they often mark the limit between acute and chronic cases, and determine the ultimate curability of the patient. I have before me the last reports of two asylums in Philadelphia, that of New Jersey, and the very valuable report of the Commissioners of Lunacy for Massachusetts. A reference to what is therein stated, and former knowledge as to prior experiences, emphasize the fact that a large proportion of those that recover do so within one year after admission, and these are largely of not more than three months' previous duration. It is well known that the chances of recovery for cases which have in all lasted over eighteen months are exceedingly limited. Thus, of the 107 patients discharged cured from the Pennsylvania Hospital for the Insane for 1874, 39 were there only three months, 28 between three and six months, 22 between six months and one year, and the remaining 18 are named as over one year, but probably most of these ranged between one and two years. "If (says Dr. Allen, Mass. Report, 1874) the proper treatment can be applied in its first attack or stage, it is estimated by some that, taking all cases as they arise, from seventy to eighty per cent. can be cured, and others estimate the rate still higher; but if not treated at all, or attempted unsuccessfully, till the disease passes into a chronic state, it is found, as a general rule, that not more than ten per cent. ever recover. This shows the great importance of prompt and early treatment." "The recoveries are confined chiefly to fresh admissions, or to the acute stage of the disease."

"Whenever an individual exhibits marked evidences of derangement of mind, not a day, certainly not a week, should be allowed to pass without carrying him to a hospital." We cannot fully subscribe to the last remark, for there are cases and circumstances which may indicate treatment at home, or less speed in asylum assignment, but surely not a day should be lost in proper medical advice.

And it is just as easy and just as proper that the private physician should be competent to meet, and, in some cases, to continue to treat some cases of invalidity of mind as other forms of invalidity. But the importance of early treatment somewhere cannot be over-estimated. The report of the Friends' Asylum, embracing 1,776 cases, reaching through a series of years, shows 65.91 per cent. of those which were under one year restored, while only 14.57 per cent. of those beyond that period recovered. This so far accords with similar statistics of other hospitals that it is not necessary to multiply proofs of the fact. Probably if the table could be still further analyzed, so as to show not only those of the first year, but the decrease of recoveries in each succeeding month, after treatment was fairly instituted, we would find still more pointedly the value of early treatment. We would carry the idea where it belongs, back into the very beginnings of disturbed mentality or disturbed nerve-function, and say that all experience proves the importance of having the private physician so educated as that the *very* early treatment of disturbed mentality, which necessarily falls within *his* purview, shall be so conducted as to prevent the chronicity of the disease. We are finding, more and more, how, in pneumonia, pleurisy, etc., in a very short time the question is decided whether there shall be such deposit resulting as insures tuberculous degeneration, and so in some forms of mental trouble a reflex irritation may leave its early impress on cell-groups, and we get what Seguin calls "retentivity" of abnormal action. This early skilful care is all the more important, because manifold cases of nervous disease and local disorder are so near the boundary line between the sane and insane, that we need to know what the perversion means, and how to deal with it. Not only must all asylum patients pass through the hands of private physicians, but many cases are in fact never sent there, be the accommodations what they may, and others are arrested and cured by a prompt and intelligent meeting of first indications. Says the Massachusetts report: "We have 2,256 in establishments conducted expressly for this class, being but a little more than one-half of the whole number in the State." We have no statistics showing how many cases of threatened derangement are warded off, but we think the experience of physicians records very many in which prompt treatment has proved of saving value.

The physician understanding the laws of mental and functional disorder, and the medical and psychological treatment (or method of dealing) required, will save from going far more patients than he would have occasion to consign to asylums. Says the last report of the New Jersey Asylum: "The symptoms of insanity may consist in any and all variations from the natural expression of the faculties." The treatment has to do with "the correction of any and all physical derangements, as well as of mental and moral disorder." A physician of a leading asylum lately said to us: "I do not recognize any such thing as a mental disease *per se.* Derangement is but a physical phenomenon, dependent upon physical changes or perverted functions of the body." We may vary the old Latin proverb and have an additional truth: "Mens insana in corpore insano." The significance of early physical symtoms, and need and possibility of very early non-expert treatment is shown by another superintendent, who says: "Many or most of the causes that are strongly influential in exciting the disorder, do so through their effect to induce morbid wakefulness. The loss of sleep, therefore, is the real cause of the derangement or unbalanced state of mind; . . . to restore the ability to sleep, therefore, when it is lost, as is often the case with insane patients, is about all that is needful to insure their recovery." An experience in warding off some cases of threatened derangement, and the treatment of some in which the perversion was decided, has impressed upon me the very great importance of the sphere of the private physician in his relation to all mental disorder. Not only in order that he may treat nervous diseases, but in order that he may meet the first motions of insanity, he must be acquainted with the mental and moral relations of the body.

There is need, too, that society be informed on this whole subject. Many of the causes of derangement are within the reach of public and personal lay appreciation. Very many cases consist in a yielding of the will, associated with some physical invalidity, which, if controlled in time, would not get the mastery. There is more room for skilful tact in such cases outside of asylums than in them, and a grander field for the expert in prevention than for the expert in cure. It is often possible so to treat the patient medically and mentally, and so to direct proper exercise of body and of mind as to shake off that misanthropy in which many a case takes its start, or to abate those conditions which are goading the vexed soul into derangement. Even the practicability of change or scene, of treatment away from home and present associations, ought not always to mean an asylum. We are not sure, but that the same charity which prompts the erection of asylums should also make the superintending physicians available in consultation to such practitioners as feel their need of counsel, so that some of the cases may be judged of and met earlier at home, or that others which are kept at home may be at the proper time sent to an institution.

In Scotland the Commissioners of Lunacy are required to investigate by visit or inquiry all cases out of institutions, and a similar law prevails in England and Ireland. It is high time that the States and the asylums too did more for the prevention of insanity. There is such a theory as manufacturing material and affording splendid inducements, and such noble charities should not be mere repositories of the sad burden, but should seek to alleviate causes. One of the ways for doing it is for the able and efficient heads of these institutions to do their utmost to instruct other physicians as to their sphere in the inception of the varied forms of the disease. Or may we not aid each other, we by telling what we know of cases in their beginnings, such as they seldom see, and they by telling us of the laws of progress and limitation afterward, such as are more under their surveillance. Gray, Kirkbride, Brown, and some others, are indeed serving us in this way, but we would stir both superintendents and "lay" physicians to more sturdy correlative and connected work. The field is becoming alarmingly extensive. Pennsylvania, when the Warren Hospital is done, will be able to receive 2,500 patients, and all the room is needed. New York State has large accommodations, and is not behind in material.

New Jersey, with her 655 at Trenton, has found so many unprovided for that she is finishing a mile and a quarter of asylum on Morris Plains. Massachusetts reports 2,256 already provided for, and nearly as many at their homes. The age, too, of inmates is setting back to an earlier decade.

Nervous diseases are multiplying with almost epidemic earnestness, and the pressure of hasty American life is telling upon the coming population. Yet we do not believe there is occasion for visions of increasing craziness, or for any alarm except that which, embracing significant facts, opens the eye to causes and works methodically and intelligently for prevention and cure. The private and institutional physician must join closer in this work. The medical student must study more the nerve department of all disease. The whole profession must realize how wonderfully of late years new and valuable remedies have been found available in morbid conditions. Hopefully and heroically we must join the art of prevention to that of cure, and realize the portentous moment of those first early formative home days of all physico-mental disease, on our dealing with which so much depends the prolongation of the malady, its limitation in a few months, its speedy cure, or its irremediable permanency.

Progress of Medical Science.

Anatomical Proofs of two Brain Centres.—Professor Betz, of Kiew, observes that in the cortical portion of the brain there are two tracts lying at the posterior extremity of the sulcus of Rolando and separated by it; the anterior one extends as far as the internal surface of the hemisphere, while the posterior is much larger. In the former of these tracts he has found certain peculiar cell-formations. They are the largest pyramidal cells of the whole nervous system, having a breadth of from 0.05 to 0.06 millimetres and a length of from 0.04 to 0.12 millimetres; they are also provided with a certain number of processes, of which there are two principal and from seven to fifteen accessory ones. One of the principal processes, the larger one, extends to the periphery of the cortex, while the other or thinner one increases in size and is continuous with the axis cylinder. These corpuscles, which he calls *giant pyramids*, are common to men, certain apes and dogs, and they are found at the points where Fritsch and Hitzig performed their well-known experiments. They are found in groups in the anterior cortical tract, but they are sparingly distributed throughout the anterior central convolution, while they are most abundant on the internal surface of the hemisphere. Internally from the fissure of Rolando, the author describes a lobe which he calls the *lobus paracentralis*, and which he regards as a *motor* tract that is identical in men and other animals. In the former it lies concealed in the middle of the hemisphere, while in the latter it is free.

In the posterior cortical tract the author describes large corpuscles with few processes, without a sharply defined axis cylinder, and having a thin peripheral process unprovided with lateral branches. This tract he regards as *sensory*. To the former of these two tracts especially he looks for interesting discoveries elucidating the subject of central paralyses, epilepsy, eclampsia, hysteria, and aphasia.—*Med. Central-Bl.*, xii., 37, 38, 1874.—*Schmidt's Jahrb.*, 1875.

Forcipressure.—At a recent meeting of the Société de Chirurgie of Paris, M. Verneuil called attention to the value of the use of forceps in compressing bleeding vessels, and he gave the name of *forcipressure* to the method, which, however, he did not claim as new. He stated that he was in the habit of applying the forceps in this way when the hemorrhage was severe and from a large extent of surface. The instruments might often be left in place for several days.

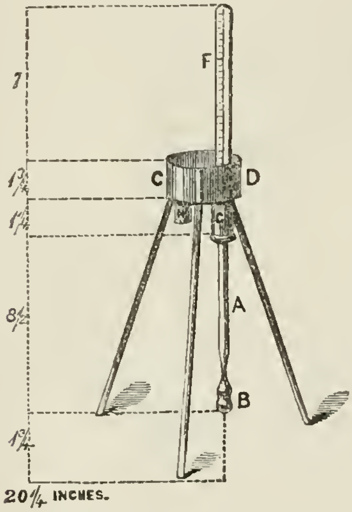
M. Péan has also made some contributions to the same subject. In a recent communication to the Academy he states that the application of forceps for the arrest of hemorrhage was indicated in the following three cases:

1. To prevent hemorrhage, by compressing the vessels before the incisions were made. This procedure was especially useful when peritoneal adhesions were to be cut through.
2. To arrest hemorrhage temporarily, as in the course of an operation, using the ligature subsequently, if the vessels bled.
3. To arrest hemorrhage definitively; he then applied them and left them in place with the dressings. They were removed on the first, second, third, or fourth day.

The forceps he used were very much like the ordinary dressing forceps, and the jaws were either T-shaped, diamond-shaped, or triangular. An ordinary rack and pinion attachment was fitted to the handles, and in this way firm compression could be maintained indefinitely. M. Péan had used these forceps in the operation of castration, when he found it desirable to compress the cord. He applied two of them to the cord, removing them on the fourth day.—*Journ. de Méd. et de Chir.*, March, 1875.

On Nerves Controlling the Dilatation of Vessels.—Professor Goltz and others have been making experiments on dogs to determine the effect on the temperature that followed the section of nerves. They found that after dividing the sciatic the vessels in the affected limb underwent active dilatation, and this result occurred repeatedly in the same limb, if only section were again made of the nerve at a point nearer the periphery. As a result of these experiments, Goltz maintains that on section of a nerve the *vaso-dilator* fibres contained in it are irritated, and in consequence produce an active dilatation, which, however, exhausts itself subsequently and is followed by a persistent contraction. It is believed further that the tone of the vessels is maintained by certain nerve-centres which exist in the vascular walls. These views are believed to derive support from the fact that they explain certain observed phenomena, as, *e.g.*, that the penis of the horse becomes erect after section of the pudic nerve, the vessels of the belly dilate after division of the splanchnic, hyperæmia of the eye follows section of the trigeminus, etc. The author also claims that the condition of irritation, which is constantly observed in the sensitive nerves after section, supports his hypothesis, *e.g.*, the pain in the fingers, after division of the median nerve.—*Med. Central-Bl.*, xii., 41, 1874.—*Schmidt's Jahrb.*

A Simple Process for Estimating Urea in the Urine.—Messrs. W. J. Russell and Samuel West give the following description of their method: The reagent employed is a solution of hypobromite of soda in considerable excess of caustic soda; and the most convenient strength of solution is found to be that prepared by dissolving 100 grammes (3½ oz.) of caustic soda in 250 c. c. (9 oz.) of water, and adding to this, when cold, 25 c. c. (7 drachms) of bromine. The solution unfortunately decomposes if kept for some little time, and it is safer to make it in small quantities as it is required. This may be easily done by keeping in stock the solution of caustic soda, and adding to a portion of this the requisite quantity of bromine at the time the experiment is made. The apparatus, the form of which is shown in the accompanying sketch, consists essentially of three parts: a tube, A, in which the reaction takes place; a measuring tube, F, to collect the gas produced; and a small pneumatic trough, CD.



The tube, A, about nine inches long, is narrowed two inches from the closed end, and a bulb, B, holding about 12 c. c., blown on it. The upper part of the tube contains about 25 c. c. This is fitted, by means of an india-rubber cork, into the small elliptic tin trough, CD, about three inches long, standing upon three legs. In using the apparatus, a 5 c. c. pipette is filled with the urine, and the liquid is allowed to flow into the bulb of this tube. Water is added, thus washing down the urine which adheres to the sides of the tube, and filling the bulb up to the point of the constriction. A glass rod, with a piece of india-rubber tubing about half an inch long drawn over the end of it, is then introduced, so that the india-rubber plugs up the constriction. The hypobromite solution is then poured into the upper part of the tube until it is full, and the trough is afterwards half filled with ordinary water. The graduated tube, F, is filled with water, the thumb placed on the open end, and the tube is inverted in the trough. The glass rod is then pulled out, and the graduated tube is slipped over the mouth of the bulb-tube. The reaction commences immediately, and a torrent of gas rises into the measuring tube. With the strength of the hypobromite solution which is suggested, the reaction is complete in the cold in about ten or fifteen minutes; but in order to expedite it, the bulb is slightly warmed. This causes the mixing to take place more rapidly, and the reaction is then complete in five minutes. The reaction will be rapid and complete only when there is considerable excess of the hypobromite present. After the reaction the liquid should still have the characteristic color of the hypobromite solution. The simplest means of supporting the measuring tube is to have the bulb-tube corked into a well, G, which projects from the bottom of the trough, about one inch downwards. The graduated tube stands over the bulb-tube, is supported by it, and rests upon the cork in the bottom of the well.

It is convenient to have at the other end of the trough another well, H, which will form a support for the measuring tube when not in use. The gas collected is nitrogen saturated with aqueous vapor, and the bulk will obviously be more or less affected by temperature and pressure. It has hitherto been necessary to make correction by calculations of some intricacy for the variations in the bulk of gas which these produce, but with the present form of apparatus it is found that these corrections may be avoided, and the volume of gas read off at once without calculation.

The reason of this is the following: When urea is decomposed by hypobromous acid, the whole of the nitrogen is not given off, but there is a loss of 8 per cent. at 60° Fahr., which is about the ordinary temperature of wards; however, the increase in the bulk of gas caused by the temperature, moisture, and pressure, amount exactly to 8 per cent.; that is to say, the increase due to these causes exactly equals the loss of nitrogen due to the incomplete decomposition. In other words, if we make no correction at all we get exactly the quantity of gas we ought to have. Hence all calculations are avoided. The measuring tube has upon it the figures I., II., III. These mean 1, 2, 3 grammes of urea in 100 c. c. of urine; *i.e.*, 1, 2, 3 per cent., as it may be called; so that if after experiment the level of the gas stands opposite II. on the tube, the urine experimented upon contains two per cent. of urea. Sugar does not interfere with the reaction and albumen only so far that the bubbles take a long time subside. It is advisable, therefore, to remove the albumen by boiling quickly with a few drops of acetic acid, and to filter. Five c. c. of the filtrate is then taken and estimated as above.—*The Practitioner*, February, 1875.

Divided Tendo Achillis.—Dr. Pierson, of Augusta, Ill., writes that the cases of divided tendo achillis, recently reported in The Record, call to mind a case he was called to treat some twenty-five years ago. Two young men were chopping on the same log, on opposite sides, and near each other; the one losing his balance, threw up one foot to secure it, but just in time to meet his brother's descending axe, which cut directly across and divided the tendo achillis about one and a half inches above its attachment to the os calcis. He was absent from home, and did not return for several days after the occurrence, when it was dressed by a neighboring physician by simply stitching the skin together and bandaging. When the Dr. saw the patient the stitches had torn out, and the wound was suppurating freely, gaping wide open, showing both ends of the tendon fully an inch apart. He could only bring them together by the stitches after flexing the foot back to its utmost; by keeping it in that position, and under the use of adhesive straps, the wound healed, and contrary to all expectations, the patient soon had the full and free use of that foot, though for a time he was somewhat lame. The patient continued to reside in the vicinity, and now for a number of years has walked without apparent lameness. This case is another exemplification of the fact that union of tendons by suture is a good operative procedure.

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SPECIALISM AND GENERAL MEDICINE.

During the past month there has been a large accession to our ranks. We are informed that never before have our leading medical schools graduated a larger number. Whether there is such an absolute need for physicians as to call for this abundant supply, will be a question which will doubtless be answered in far from a satisfactory light by the majority of aspirants now waiting for business. We have very little doubt that the majority of the graduates have determined to espouse a specialty. This could hardly be otherwise, considering the conventional understanding regarding the position and emoluments of specialists in general. It is now very generally believed that not to be a specialist is to be nothing. This conviction has forced itself upon the professional mind by the great success with which some specialists have met, not only in the way of reputation, but of pecuniary gains; by the established position which specialism has made for itself against very many and very powerful obstacles; by the progress which it has insured to medicine in enlarging our means of observation and making more sure our methods of treatment. A few years ago specialism was considered but another name for quackery; now, sentiment has so far changed that every successful specialist is envied. As is often the case, we have gone from one extreme to the other. The proper course is somewhere between the two. The young medical man who is about to start upon his professional career should understand where this medium lies.

To such as are determined to be specialists, we would say, in the first place, do not be in any hurry. To be a good specialist requires a great deal of time, study, and patience. When one has earned such a reputation by such means, he is certainly to be envied. We have always held that no one could be a successful specialist unless he had first been a successful general practitioner; that a special and thorough knowledge of the diseases of any one organ was as natural an outgrowth of general knowledge of medicine as was the branch from the parent trunk. This is a point which younger men are very apt to lose sight of in their eagerness for what they believe to be professional success. If every one would fully appreciate the importance of thus developing a specialty, we should be able to draw the distinction between mere ambition and real merit, to learn the difference between the mushroom upstart and the plant of slower and steadier maturity. The truism that all good things come slowly, is particularly applicable to the growth of a specialty.

Even when we take all these conditions into account, and make every endeavor to fulfil them, it may be well to inquire if we are not in danger of crowding the ranks of specialism. Considering the great number of those who have already entered the lists, there is a pertinency in the question which should not be lost sight of. The specialists themselves have been ready to acknowledge this long ago, but we consider that the time has come for the raw recruits to view the situation with calm consideration. Every organ is now so well attended, that it is almost next to impossible to find room for any new-comers. It would seem to be necessary to start some new specialty, to settle upon some of the more obscure organs, and subject them to the penalty of greatness. We have no doubt that this emergency will be properly met in time. We have always been in favor of the study of specialties, when that study was properly carried out; but there is no necessity of drifting into one-ideaism on the subject. We should not forget that general medicine has its claims also, that to be a general practitioner, pure and simple, should also be the object of our high ambition.

By properly allowing the claims of this class of professional men, we take another very legitimate means of tempering the fashionable excitement for specialism which has taken so much possession of the professional mind. There is more danger at present of having too many specialists than too many good general practitioners. We ask our younger brethren to consider this fact. General practice offers to-day as many inducements for the thorough student as any of the specialties. Even in a pecuniary point of view it will, in the long run, compare favorably with the best of them. The majority of physicians who have accumulated a competency have done it in general practice alone. The relation which the general practitioner holds to the community is an enviable one in every sense, his influence is widespread, and his services are a necessity to all. His position is a thoroughly independent one, being always sure of employment, whether in a crowded city or in a remote rural district.

If the young man desires to be a specialist, he should of necessity prepare himself for that office by general practice, and if he succeeds in that, as indeed he must if he be a faithful worker, he will be giving services which will always be in demand, and for which he will always be well remunerated. If at the present time many of the young men who are about going abroad to study a specialty, would accept this fact, both themselves and the community at large would be the gainers thereby. There is always a need for a general practitioner, and the young man who resolves to qualify himself for the duties of that office can consider his success certain, and his ultimate competency assured. Common-sense is, after all, the best specialty in medicine, as it comprises a wider range of subjects than any other, and is a field which, on account of the neglect of general practice, needs a great deal of cultivation. If we wished to assure the success of the greatest number of our young men looking around for opportunities, we believe we could give them no more wholesome advice than to be general practitioners.

THE EARLY TREATMENT OF THE INSANE.

The paper of Dr. Hunt in another column, advocating the necessity of a knowledge of the various forms of insanity, is timely and suggestive. That the necessary means to such an end is the establishment of chairs of psychology in our medical colleges cannot be questioned. Such a plan has been repeatedly urged in these columns, and we are pleased to have an opportunity to urge its practicability once more. The facts which he presents regarding the utility of the measure, although confined to a somewhat limited examination of asylum statistics, can find a parallel in a more extended observation.

It is now a well-established principle in the treatment of the insane that while the acute cases are quite curable, the chronic cases are very intractable. The general practitioner cannot too soon appreciate the force of this fact, not only in the interest of the patient, who may be irreparably lost, but in that of the asylums, which are now so crowded with incurables. While we admit that the treatment of diseases of the mind is a distinct specialty, we must also be prepared to offer our advice in many ordinary cases which constantly arise in the every-day practice of the family physician, and, as in all other diseases of a special class, have a sufficient knowledge of it to be able to decide when a given case must be resigned into the hands of an expert. The principle advocated in the paper in question is a sound one, and commends itself to the serious attention of every one liable to meet with the cases to which it refers.

THE KINGS CO. MEDICAL SOCIETY AND THE EDUCATION OF THE PUBLIC.

The report of the Committee of the Kings County Medical Society concerning the propriety of giving the necessary information to the public on medical topics is one of considerable interest to the profession. The position assumed, although a radical one, deserves commendation, especially at this time, when newspaper advertising is so extensively practised. There is no question that the public are in want of the kind of information which can only be furnished by well-educated physicians, and that if this information is given in a proper way it will be respected by those for whom it is intended. The precise way to accomplish our mission as medical teachers is, however, not so easy to determine. The proposed plan has the recommendation of novelty, and for this reason is entitled to a fair trial. This is, after all, the best test of its practicability. If the experiment be a failure the profession stand ready to credit the Society for good intentions and sympathize with it in the laudable endeavor to solve a very difficult problem. We earnestly hope that success will crown the effort.

Reports of Societies.

NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY.

Stated Meeting, March 15, 1875.

The President, Dr. Meredith Clymer, in the Chair.

PARTIAL PARALYSIS AND WANT OF CO-ORDINATION FROM IRRITATION OF THE GENITAL ORGANS.

In the issue of The Record of March 6, 1875, is found an abstract of a paper read before the Society upon "Partial Paralysis and Want of Co-ordination from Irritation of the Genital Organs," by Dr. Lewis A. Sayre. This question was made the special order for discussion at the next regular meeting of the Society, held March 15, 1875.

Dr. Otis opened the discussion. He remarked that he was happy to have the opportunity of confirming the observations made by Dr. Sayre upon this class of cases, by a somewhat extended experience of his own. The trouble in those cases which Dr. Sayre has referred to seems to have involved only the prepuce, and that only at its reflection from the glans. In his own experience those irritations that have produced reflex troubles and partial paralysis, have not been confined to this particular region. A little more than one year ago he read a paper before the Academy of Medicine, in which he gave a *résumé* of twenty cases where reflex irritation had resulted from strictures in the anterior portion of the urethral canal.

With regard, however, to paralysis arising from preputial irritation, he had had some extraordinary experience. He referred to the following cases:

Case I.—A child came under his observation who was suffering from retention of urine. Upon examination it was found that the preputial orifice was almost closed. No instrument was at hand sufficiently small to enable him to relieve the retention. With a narrow bistoury he slit up the prepuce, and went to his office for an instrument of the proper size with which to draw off the urine. When he returned, the child had passed water several times during his absence, and subsequently was not troubled with retention. It was represented by the parents that before the operation the child was not able to sit erect like other children; but that there seemed to be a condition of partial paralysis that was general. All that paralysis passed off in a very short time, within two or three weeks, and the child made a complete recovery.

CASE II.—This was another child who had been under observation for several years. He was badly nourished, of scrofulous parents, and was supposed to have a scrofulous cachexia. His mental condition seemed to be obtuse; he took no interest in the sports of the other children, and he could not be induced to leave his mother at all; he was restless, and apparently uncomfortable, and suffered severely from headache. Dr. Fordyce Barker saw the case with him in consultation, and a plan of treatment was decided upon, but no benefit followed. One of the inconveniences the child suffered from was a very troublesome enuresis. He wet his bed very frequently, and wet his clothing daily. Belladonna and various remedies had been administered, but without permanent benefit. Upon examining the penis a redundant and contracted prepuce was found. This was removed, and when removed it was found that the prepuce was adherent to a considerable extent over the glans. The *meatus urinarius* had been subjected to inflammation, extending to it from from the prepuce, and this was also contracted to a considerably small orifice. The opening was increased in size up to the normal calibre of the urethra, and the patient left for the day. Upon calling the next morning he found that this boy had not made water since the operation, nor was there any evidence that there was any over-amount in the bladder. From that time forward he had no trouble with his enuresis. His father sent word the following day that his boy seemed entirely changed in his appearance and actions. Formerly, his eye had had the same expression as the eye of a fish, but that since the operation this expression had changed, and he immediately began to play with the other children. The change was so marked, and followed the operation so quickly, that it must be attributed to the relief afforded by the operation.

Improvement steadily followed. The boy gained flesh very rapidly, and continued in this manner for several months, when he again began to be troubled a little with the enuresis. Upon making examination, contraction of the preputial orifice was again found, and it was redivided. Since that time he has had no trouble whatever, and has completely recovered.

Dr. Otis then read letters from Dr. Mastin, of Mobile, and Dr. Francis Brown, of Boston, in which the history of cases was related equally as striking as any he had seen or had been reported by Dr. Sayre.

Dr. Otis continued by saying that he believed that the influences of irritation, which are oftentimes reflected irritations of this kind, extend throughout the genito-urinary tract, and throughout the entire sympathetic nervous system. To show how remote the effects of irritation of this kind may be, he related the case of a physician who came to him some four months ago from Ohio, suffering from urethral stricture. He had five strictures between the external opening and the bulbo-membranous junction, and they were all divided at one sitting. They would admit a bulbous sound of only No. 19, French scale, before the operation. They were divided to admit No. 34, French scale.

Two days after the operation, he (the patient) remarked that perhaps he was foolish, but that there were some little matters that had troubled him before the operation which had entirely disappeared since. For instance, he had suffered from pain about the lower part of the spinal column and about the groins, which prevented him from stooping. Since the operation, however, all that feeling had left him, and he felt nothing of it subsequently. He had also noticed that within the last year, while sitting with a book in his hand and reading, that the book would suddenly fall from his hands; and he became alarmed, thinking that he was probably to have an attack of paralysis. This occurrence was occasionally repeated, and he had occasional attacks of paralysis of the terminal phalanx of the index finger, particularly upon exposure to cold; but he had worked himself up to the belief that all these symptoms were due to fatigue, etc. All these symptoms, he said, had entirely disappeared since the operation, and had not returned, although exposed to cold and the same influences that he had formerly supposed to be the cause of them. There was another thing, he said, which was exceedingly annoying, and that was a constant *ticking* in his head. That annoyance also disappeared after the operation, and the patient was confident that all these symptoms had been relieved by relieving the irritation in the urethral canal. When we look over all the cases which have been reported, says Dr. Otis, we must recognize in them an affection of the spinal cord, and it is not too much to suppose that irritations at different points in the genito-urinary apparatus, which is so intimately connected with the whole sympathetic nervous system, may originate in the cord itself, and be transmitted to any part of the body. We have irritations transmitted from the neck of the bladder to the end of the penis, and from the end of the penis to the neck of the bladder, and an *unfelt* irritation at the neck of the bladder will give pain at the end of the penis.

He then related a case in which the patient had spasms at the neck of the bladder for five years, and suffered the most intense agony, agony which at times was terrible. A few days before his death he suffered for the first time from irritation at the end of the penis, so severe that it seemed perfectly unendurable. In his agony, and seeking something for relief, he applied snow to the end of the penis, and it gave relief from the spasm at the neck of the bladder *at once*. During the remainder of his life he derived great comfort from this accidentally discovered plan of treatment.

He was of the opinion that the class of irritations under consideration is very common; and even when no phymosis or stricture is suspected, that upon examination such conditions will be found as are capable of producing just such effects as have been mentioned.

DR. CARROLL remarked that his attention had been called to the condition of the prepuce and glans penis in healthy children, and that he had found in nearly every instance adhesions between the two surfaces. He had had a case under observation for some time, and had found that these adhesions little by little had given way, showing that in many cases, at least, adhesion is physiological in early life. He believed that it was well to take this fact into consideration, while watching the class of cases alluded to.

DR. OTIS remarked that there are very many of these preputial adhesions that are pathological, and not physiological. He was of the opinion that the remarks of Dr. Carroll would lead gentlemen astray in attributing these results to physiological processes. For it very frequently requires considerable force to separate the adhesions that are found, and he believed that all attachments which merit the name of adhesions are pathological, and the patients do not get well of themselves. There are cases, doubtless, which may fall under the class included in Dr. Carroll's statement; but in the majority of cases the union between the prepuce and glans was pathological, and not physiological.

Dr. Emerson inquired of Dr. Otis at what age he would regard the union which is found to be pathological, and not physiological?

Dr. Otis answered, at any age in which there was such a condition of the parts as would not allow of separation without hemorrhage. The normal agglutination of the parts is not an adhesion, strictly speaking. Any adhesion which is worthy of the name is pathological.

Dr. Carroll remarked that in speaking of adhesions he did not mean adhesion which is simply an agglutination. The theory which he advanced was simply this: In early infancy there is first formed a very small furrow at the base of the glans, and from this the lining membrane of the prepuce is reflected over it. At first this furrow is very small, but with the gradual development of the child the entire reflection is deepened, and yet the two surfaces remain in contact by agglutination. The few cases, however, which had fallen under his observation might not warrant these conclusions.

Dr. Robert Newman related a case in which the boy had constant spasmodic trouble from genital irritation. The prepuce was long, and adhesions were present between it and the glans. Circumcision was suggested, and objected to by the parents.

He endeavored to separate the adhesions by other means, and was able to do so only by repeated attempts. Separation was finally completed, the prepuce retracted, and the boy made a complete recovery.

He had not found such a physiological condition as described by Dr. Carroll, and was of the opinion that the adhesion found was pathological and not physiological.

He was further of the opinion that the condition that produced the results referred to—spinal irritation, partial paralysis, etc.—was not simply an elongation of the prepuce but an elongation combined with a narrowing of the preputial opening. Perhaps these two conditions go together. Perhaps the long prepuce may retain small quantities of the urine, and the residuum gives rise to the adhesions, and the pathological condition may be explained in this manner in part. He also mentioned divulsion as an operation that in many cases may answer the same purpose as circumcision.

Dr. Otis related a case, touching upon the matter of agglutination, in which the man, twenty-four years of age, had never been able to retract the prepuce over the head of the penis, on account of the attachments that were present between the two surfaces.

Being engaged to be married, the man thought that something should be done in the way of repair, and set himself to work. He finally succeeded in uncovering the head of the penis without producing hemorrhage. This case goes to show that the union in some cases is not very firm, and may be broken up perhaps without trouble.

Dr. Sayre remarked, that it mattered not whether the two surfaces are agglutinated pathologically or physiologically, the condition developed was one in which it was impossible for the prepuce to unfold itself and permit of the exposure of the head of the penis, and the parts sooner or later became thickened, hard, and indurated, and it is impossible to separate the surfaces without an operation. The doctor also mentioned one or two cases.

Dr. Emerson mentioned the case of a young lad, ruddy and intellectual, who became troubled with peculiar symptoms. For instance, while performing examples upon the black-board, at school, he would suddenly be seized with mental aberration, which for a time blotted out his reasoning faculties, a sexual impulse would come over him, and a small quantity of semen would escape. His health broke down in consequence. Upon examination it was found that he had never been able to retract the prepuce over the glans penis. Circumcision was performed, and a hardened mass of smegma removed from about the corona. Improvement followed the operation immediately, and all the impulses and mental impressions entirely disappeared. He was over twenty years of age when he was relieved of the trouble.

Dr. Otis further related a case in which the diagnosis of cerebral softening had been made by that acute observer Dr. Brown-Séquard. But as the patient was going out of his office, Dr. Brown-Séquard noticed an unsteady gait and stumbling that brought to his mind the possibility of genital irritation. The patient was called back, an examination made, a contracted preputial orifice found, balanitis, etc. This condition was looked upon as a possible cause of the trouble. Circumcision was performed, and within six weeks the patient was entirely well.

Dr. Clymer remarked that fully one-third of the cases of nervous diseases he was called upon to treat were dependent upon some form of genital irritation; and that the other two-thirds were due to blood-poisoning, either syphilitic, malarial, or lithæmic.

The Society went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, March 22, 1875.

The President, Dr. H. B. Sands, in the Chair.

TUBERCULOSIS.

Dr. Carl Heitzmann read a paper upon the above subject of which the following is a brief abstract: He first considered the history of his subject, and stated that the true pathology of the affection dates back to only about one hundred years ago; although in the seventeenth century physicians observed various nodules in the lungs which were called tubercles, the same as they are to-day. Following this was a brief reference to the doctrines concerning the origin of tubercle that had been announced from the time of Bayle and Laennec up to the present date. Bayle and Laennec denied that it ever had an inflammatory origin. Broussais promulgated a theory directly opposed to this, namely, that tuberculosis of the lungs was nothing more than chronic pneumonia.

Louis supported the theory of Laennec. Carswell, Clark and Stokes regarded some cases as terminations of catarrh. Virchow limited the term tubercle to miliary, and suggested the term cheesy for the term infiltrated. Miliary tubercle is a hyperplastic formation and has to do with the lymphatics. The views of Virchow were used by Niemeyer, and he states that every pneumonia, especially that styled chronic catarrhal, may terminate in consumption, while miliary tuberculosis only follows ulcerative pneumonia.

Reference was also made to Dr. Austin Flint, who opposes the teachings of Niemeyer, and also to the fact, that, since 1865, tuberculosis has been pronounced to be a disease that can be produced by inoculation. Indeed, the controversy upon this point is still going on. The doctor then proceeded to state the results of his own observations, derived from the careful examination of more than 300 bodies in which tubercles had been found after death. His remarks were confined to tubercle of the lungs, and he classed his cases under four distinct heads.

1. *Chronic Tuberculosis.*—This could more properly be called localized tuberculosis, for it is found chiefly at the apices of the lungs. This is the form of the disease frequently found in the anatomical room, and of itself rarely proves fatal. The changes that are found in such lungs are in the form of nodes or infiltrations, sometimes nodules, and are the result of healing processes.

2. *Subacute Tuberculosis.*—To this class those cases belong in which there are disseminated tubercles or formation of new tuberculous nodules in a relatively short period of time.

3. *Tuberculous Pneumonia.*—This form of the disease commences not infrequently in the lower lobes of the lungs after capital operations, and the first manifestations of pathological changes are ordinarily in the region of the smaller bronchi.

4. *Acute Miliary Tuberculosis.*—In this form of the disease both lungs are almost always affected to the same extent, and the same kind of deposit is also found in the meninges of the brain, liver, peritoneum, etc. It always terminates fatally after the development of typhoid symptoms, and in ten per cent. of the cases no cheesy change can be found after death. With regard to the nature of tubercle, as to what it is, and what its essential signs are, his conclusions were that it is not evidenced by the presence of nodules (for nodules are found in the body under a variety of conditions); that it is not proven by the presence of infiltrations (for infiltrations non-tubercular in character are found everywhere in the body); nor yet that it is the presence of cheesy metamorphosis, for this also occurs independent of tuberculosis. Still, further, the presence of hyperplastic formations cannot be regarded as characteristic of tuberculosis, but he believed that tubercle is the product of inflammation, and arises only in such tissues as have blood-vessels In other words, it is a new tissue, composed of small elements, small nuclei and nucleoli, is destitute of blood-vessels, and is developed out of inflammation. It becomes cheesy through lack of vitality, and suppuration of the mass is always the result of changes occurring in the adjacent tissue of an inflammatory character. The treatment of tuberculosis mentioned was that already given by Virchow, namely, to remove the predisposing causes, and avoid all noxious influences. The paper was then received by the Society, and became the subject for discussion.

Dr. Delafield remarked that the historical sketch with which the paper was prefaced seemed quite sufficient to show that the question of tubercle was far from being settled. Since the time of Bayle and Laennec these questions have been discussed, namely, what is the relationship between scrofula and tuberculosis? what is the relationship between acute miliary tuberculosis and chronic tuberculosis? and what is the relationship between tubercular disease and chronic inflammation of the lung?

As regards these questions, medical opinion has been constantly setting in different directions.

After having followed Virchow's theories for some time, there is now an apparent tendency among observers to hasten and arrange themselves upon the other side, and to return to the old theory that all phthisis is tubercular. The doctor mentioned Rindfleisch as being one of the ablest advocates of this theory, and referred to the treatise he has published in Ziemssen's *Cyclopedia* as a paper which, when translated into English, will doubtless attract numerous followers. The style of this author is so attractive, his statements are so bold and definite, and the successive steps in the process are given with such precision and accuracy, that the theory he advances can hardly fail to draw many in the direction of regarding scrofula and tuberculosis as one and the same thing: also that acute and chronic tuberculosis are identical in nature; and still farther, that all phthisis is tubercular phthisis.

Rindfleisch states that there are specific tubercular corpuscles; and that the precise position at which tubercle is always first developed is exactly where the smallest bronchi join with the interlobular passages.

The personal opinion of Dr. Delafield, however, was that the forms of phthisis which he had seen in New York were not such as to allow him to support the theory advanced by Rindfleisch.

For of scrofula, as it is known in Germany and France, but little, comparatively speaking, is seen in this city. A moderate number of cases of acute tuberculosis is seen among adults, and of chronic phthisis a great deal is seen; but the forms of chronic disease of the lungs which occur here seemed to him to present, certainly in a very marked degree, such lesions as are most commonly arranged under the head of chronic inflammation.

He was not able to see any more reason for calling such a chronic inflammation by a specific name, such as tubercular, etc., than for designating a chronic inflammation of the liver or kidneys by some particular term; for in chronic inflammation of the lungs, or phthisis, we have the same products as when the same process occurs elsewhere, except as it is modified by the characteristics of the organ in which it takes place. Of course it was impossible for him to enter upon an extended discussion, and give his reasons there why he held to this opinion; and he was also very far from saying that he felt obliged to always hold to such a belief, for our knowledge upon the subject is too steadily increasing to warrant permanent adherence to any definite theory.

The type of the disease, however, that had most commonly been seen by him had presented characteristics which were of a definite inflammatory nature, and these were in the way of production of fibrous tissue in the lung. His opinion was that the most common form of phthisis seen here is that in which there is no great amount of cheesy matter in the lung, but that in which there is a large amount of new connective tissue formed together with a marked amount of chronic inflammation of the pleura and bronchi. In other words, the condition found belongs more to what has been called, by some English writers, cirrhosis of the lung than any other.

Dr. Elsberg inquired of Dr. Heitzmann whether his views coincided with those of Rindfleisch or not, for it had appeared to him that they were directly opposed to the views of that author? He wished also to propound another question, and that was, why not place the form of the disease named by Dr. Heitzmann, "tubercular pneumonia," under the head of "subacute tuberculosis"?

Dr. Heitzmann replied that his reasons for naming one form of the disease "tubercular pneumonia," was because the symptoms of true pneumonia were very much more prominent in this than in the second class of cases, which he had called *subacute*.

It is true that cases occur in which the dividing line is almost nothing, but those are exceptional to the general rule; for all the symptoms of inflammation in a healthy tissue are very apt to be developed in those patients whom he had included in the third class. He further stated that he coincided with the remarks made by Dr. Delafield.

Dr. Delafield remarked that he did not wish to be understood as saying that the views advanced by Dr. Heitzmann and those held by Rindfleisch are identical, but simply that he thought the observations of both had a tendency to lead us in the same direction.

Dr. Jacobi remarked that if we should retrace our steps, and finally come to conclude that the doctrine announced by Laennec, holding that all phthisis is tubercular, is true, it would not be the same statement as that made by Laennec, for physiological and pathological study have advanced very much since that date. He certainly was glad to see the apparent retrograde movement, and will be pleased to learn that it finally turns out to be in reality what it now is in appearance. He fully agreed with Dr. Delafield in the belief that the larger number of cases of phthisis seen here are not tubercular.

What is called scrofula is not found in this country as it is in Europe, and this may account for the occurrence among us of a larger number of diseases which are inflammatory, and not scrofulous or tubercular in character.

There is a special tendency to cell degeneration and cheesy metamorphosis in those who have a poor circulation, and the fact, as it appeared to him, that circulation is better in this country than in Europe, accounts for the smaller number of cases of tuberculosis in later life than is seen there. It may be that our observations are just as correct as those made in Europe, and finally it may be determined that the observations made in both countries lead to the fact that tubercle is not of inflammatory origin, and on the other hand that phthisis is not necessarily tuberculosis.

The subject was further discussed by Drs. J. C. Peters, Elsberg, Jacobi, and Heitzmann.

Under the head of Miscellaneous Business, Dr. O'Sullivan presented a resolution providing for the formation of a committee by the Society upon *Public Education*.

The resolution was referred to the Comitia Minora.

There being no further business, the Society adjourned.

MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

REPORT UPON OBSTETRICS, BY MATTHEW D. MANN, M.D.

In the absence of the President, Dr. Loring occupied the chair. The last meeting of each month held by the Association is devoted to a report upon some medical subject, in which it is expected that all the important operations, peculiarities in treatment, etc., touching upon the subject under consideration, will be brought forward.

In the *résumé* given upon Obstetrics, at the last meeting in the month of March, Dr. Mann noted many items which are of practical importance to the accoucheur, and a share of these have already been mentioned in the columns of The Record within the past year. A few items, however, may be mentioned, without incurring the risk of needless repetition.

Puerperal State.—Quite an innovation upon the usual management of woman after confinement has been suggested by Dr. Goodell, of Philadelphia. His suggestions are based upon hospital experience, and are that the time-honored dose of physic administered the second or third day should be abandoned; that what has been termed milk fever, occurring about the third day, is a *myth*; that the woman should be fed well from the date of her confinement: that requiring the patient to remain in bed more than five days, as a rule, is unnecessary and not beneficial, but, on the contrary, if the patient is permitted to slip into a chair at the end of the fifth day, her position is more favorable for a complete discharge of the lochia, and in this manner we secure the best deodorizer that can be employed. In addition, the change of position favors the process of involution, and the slight amount of exercise which the woman gets in this way conduces greatly to her speedy and perfect recovery. He disapproves of the use of the binder for more than a day or two, because it interferes with the action of the abdominal muscles, consequently retards restoration to the previously normal condition.

Vomiting of Pregnancy.—Several cases have been reported in which injections of hydrate of chloral have proved of the greatest service in controlling this symptom.

Induction of Premature Labor.—The statistics upon a large number of cases were brought forward to prove that this operation may be followed by good results, and is not to be dreaded by the obstetrician.

Thermometry in Pregnancy.—The thermometer has been proven to be a valuable instrument for determining whether pregnancy is present or not. The temperature of the uterus, when impregnated, as found by introducing the instrument into the cervix, is higher than that of the vagina.

The question was raised by Dr. Foster, whether there might not be danger of producing abortion by this procedure?

Sore Nipples.—Anything that may be suggested for the relief of this distressing complaint is usually hailed with delight. The proposition has been made that if two conditions can be fulfilled, the nipples will get well of themselves, and these are, freedom from friction and free circulation of air around them. These requirements may be met by making a large excavation in a piece of cork, with a hole in the top to give free entrance to air. This is to be set over the nipple, and worn constantly when the child is not nursing.

Ligation of the Cord.—It has been suggested that the cord should be ligated with a piece of *elastic* tape. The advantage claimed is that the elastic tape will follow the cord as it undergoes the natural process of shrinking, and thus prevent the occurrence of hemorrhage.

Rigor subsequent to Delivery.—One writer has not found any theory that satisfactorily explains this phenomenon, therefore presents one of his own, which is substantially that these rigors occur because of the removal of a body from the cavity of the uterus that (together with the uterus itself) has a higher temperature than the body of the mother; hence an abstraction of heat from other parts of the body, to make up for a local deficiency suddenly developed.

Dr. Garrish hails the occurrence of these rigors, for he had never seen a case of post-partum hemorrhage under such circumstances.

Extra-uterine pregnancy, pelvimetry, chloroform in labor, resuscitation from impending death from chloroform by everting the patient and at the same time practising artificial respiration, improvements in obstetrical operations, and other topics, received passing notice according to their relative importance. Altogether the report was a valuable contribution.

Remarks were made by Drs. Garrish, Foster, Burrall, Sell, and Messenger.

Messrs. Macmillan will publish shortly "A Course of Practical Instruction in Elementary Biology," by Professor Huxley, assisted by H. N. Martin.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 1, 1875.

DR. S. S. PURPLE, PRESIDENT, in the Chair.

AFTER the preliminary business, DR. GURDON BUCK exhibited a new instrument for treating

ANEURISM BY COMPRESSION.

He did not claim any originality in its construction, but it was a modification of a very elaborate French instrument he had employed in the treatment of a case of femoral aneurism without success, and he believed that it would meet all the indications, without having any of the objectionable features which that instrument possessed. He expressed a willingness to loan it to any gentleman who might have a case of this kind to treat, for he was desirous of seeing how it would operate.

THE PATHOLOGY AND ETIOLOGY OF PULMONARY PHTHISIS IN RELATION TO ITS PREVENTION AND EARLY TREATMENT.

DR. E. DARWIN HUDSON read a paper upon this subject in which he first clearly presented all the theories concerning the nature of the disease that have been brought out since the time of Laennec, and concluded what he had to say upon *Pathology* by referring to the part which the adenoid tissue of the lungs plays in this grave affection. The existence of lymphoid tissue is established in the histology of the lungs, and the theory that this tissue is the soil for a new departure explains to us two facts, namely, why it is: 1. That miliary tuberculosis, without caseous masses, is so frequent in infants and young children; 2. That miliary tubercle, whether in children or adults, so often leads to death without softening or destruction of lung tissue. In the light of this theory, an exclusive or specific dyscrasia is derived, and depressing conditions, bad hygiene, severe surgical cases, etc., may become the causes of pulmonary phthisis.

ETIOLOGY.

We recognize predisposing and exciting causes. Modern etiology asserts that scrofula and tuberculosis are one and the same, and denies that there is a peculiar tuberculous diathesis; that hereditary taint is the only cause; and that every child born of consumptive parents is from birth to death threatened with the same disease.

All statistics have failed to prove hereditary taint as the only or chief cause, but on the other hand, phthisis is liable to be developed whenever nutrition becomes seriously impaired or the blood invaded by septic matter.

Among the predisposing causes were mentioned malnutrition, bad air, improper food and lack of assimilation, violation of sanitary laws, etc. In this category we therefore have, rebreathed air, depressing influences of city life, such as relative inactivity, sedentary habits, etc. Chest expansion may be regarded as one of the most important agencies in warding off influences which, if permitted to go unrestrained, will lead to tubercular phthisis. Certain trades cramp the chest, volatile emanations poison the atmosphere; these, with many other influences, lead to the production of catarrh and interstitial irritation in the air-passages.

Inflammatory thoracic diseases were regarded as prominent exciting causes, because they may awaken a dormant predisposition into an actual disease. As regards *pneumonia*, it is the general experience that uncomplicated cases resolve completely and leave no trace of disease. It is equally true that when influenza and broncho-pneumonia are present, and also when pulmonary inflammations assume a typhoid type, that there is a greater mortality, and a greater number of cases terminate in pulmonary phthisis than when these conditions are absent.

Bronchitis was regarded as an exciting cause, although this is denied by many.

Thoracic inflammation of any form, however, is harmless when the constitution is sufficiently strong to permit the individual to come out from under its influence. It is the power the system has to resist these affections, bronchitis, etc., which determines the insignificance or gravity of the attack. Irritation of the throat, by provoking continued cough, may give rise to bronchial catarrh, and in this way lead to the development of phthisis.

Plastic exudation upon the pleura may be an exciting cause. The thickening and adhesions that result from a pleurisy may develop a hyperæmic condition in the underlying pulmonary tissue, which will result in inflammation, and the inflammatory product may undergo degeneration and become crude tubercle.

It has always been held that the old adhesions found between the pleura pulmonalis and the pleura costalis are very commonly the result of inflammation secondary to changes in the lung; and may it not be assumed with safety that the frequency of pleuritic adhesion justifies the conclusion that they may also be a cause of pulmonary phthisis? There is no reason why the inflamed pleura may not cause injury to the lung, the same as inflammation of the meninges of the brain or the pericardium do harm to the organs which they cover.

A cold and changeable *climate* favors the development of phthisis.

As regards *hæmoptysis*, a bronchial hemorrhage is perfectly compatible with health. Local engorgements may occur, and bronchial hemorrhage be of benefit, provided the blood is not retained in the bronchi, for the lodgement of blood in the bronchi is frequently followed by disastrous consequences. From what has been said upon the pathology and etiology of the disease, we are led to the following conclusions, which have a bearing upon the questions of prevention and early treatment:

1. Dyscrasia, or predisposition, is largely accumulative, and is the result of the predisposing influences mentioned, which sanitary regulations may to a great extent remove.

2. Inflammatory attacks are the chief exciting causes of pulmonary phthisis, whether in systems previously healthy or otherwise, and may be largely averted by selection of a proper climate to live in, and avoiding exposures; or, at least, they may be rendered comparatively trivial in their effects.

These conclusions lead us, while studying the subject of treatment, to the consideration of diet, clothing, exercise, ventilation, purity of water-supply, management of children, so that they shall be the least liable to catarrhal sequelæ; proper method for maintaining a perfect circulation, normal temperature, cleanliness of the skin, etc., etc.

Injudicious and too frequent bathing is injurious, and therefore should be avoided.

Early arrest of the disease should be attempted, whether it manifests itself simply as a local lesion, or is complicated by dyscrasia. The outline of treatment, with this end in view, is embraced under three heads: 1. Food, which should be nourishing and easily assimilated; 2. Chest expansion, which is the best means of fortifying against the occurrence of inflammatory diseases, and, at the same time, secures functional activity of the lungs; 3. Climate.

Cod-liver oil was regarded as an agent of nutrition, and many times can be made more useful by the addition of phosphates, iodine, etc., which increase the general nutrition of the blood. Ammonia and quinine were mentioned as drugs to be employed: ammonia, because it is a diffusible stimulant, and favors the removal of mucus; quinine, because it has the power to diminish the temperature, and prevent degenerative changes in the tissues.

Dr. Leaming remarked that, so far as the general character of the paper was concerned and the views presented, he agreed with the author; but, that phthisis is essentially an inflammatory disease in all or in the greater majority of cases, according to the views of German pathologists, he did not agree. No doubt many of the cases are inflammatory at their commencement, and the inflammatory products are followed by tuberculosis, which causes death; but he believed that this was not so much the case from bronchial inflammation as from plastic exudation into the pleural cavity.

The exudation of plastic material upon the surface of the pleura at once interferes with the circulation and nutrition of the lung, and, when large in amount, may reduce the circulation through the lung perhaps to one-third the normal quantity. Such a reduction must have an immediate effect upon the lung at the very beginning, and does do so to such an extent that, directly after such an exudation has been poured out, hæmoptysis not infrequently occurs—sometimes very extensive—and is a bronchorrhagia. There are many such cases in which the entire trouble is resolved by this call of nature, and the exudation is taken away by this conservative act. If the plastic matter, however, becomes older, and partly organized, it is a permanent trouble, and the circulation is so far permanently impeded. This continued, hyperæmia occurs, lowering of the vital condition of the part is developed, and, as he would claim, it is very apt to be followed by tuberculosis. At all events, we have degenerative changes going on, and we have destruction of portions of the lung, but whether it is simply caseous degeneration or tubercular, he considered as yet remaining unsettled. He regarded it as impossible to prove that it was not tubercular; and, if the tubercle has been there and done its work, and we find nothing but inflammatory products left, what wonder?

Reference was then made to a case which fell under his observation in St. Luke's Hospital, where blood had been drawn into the lung below the tidal air, and finally produced abscesses. Before this termination took place, however, a large amount of plastic material was thrown out over the pleura, and post-mortem verified this in every particular. It was supposed, previous to death, that the patient had pulmonary œdema, for there was an abundance of fine subcrepitant râles and other symptoms indicating this condition, but after death no collection of fluid was found in the air-cells; they were entirely pervious, but, as indicated, a large amount of plastic matter was found covering the portions of lung over the places where the blood had lodged in the bronchi.

From his own clinical experience he believes that the subcrepitant and mucous râles in general are the result of inter-pleural exudation, and that they would be more correctly named by calling them plastic râles, fine and coarse, large and small. The effect of treatment is very often to remove them, and leave the patient perfectly well, but if left, the material may become organized and the source of subsequent trouble. He referred to chest expansion as a hygienic and curative measure, and regarded it as especially beneficial. Gymnastics, with Indian clubs, etc., are not sufficient, but it requires full inspirations, repeated regularly and often, to properly expand the upper part of the lungs. Gymnasts may enlarge the muscles of the arms and chest, and in this manner even actually contract the chest capacity. The expansion of the lungs is something more than can be obtained by simple physical exercise. He further alluded to the fact that, in one of our public institutions with which he is connected, the rate of mortality among the children had been reduced from five or eight deaths a year to no deaths, or only an occasional one, by the influence of a simple but nutritious diet, consisting largely of milk.

Dr. Elisha Harris presented statistics showing the percentage of mortality in this city from phthisis, from the year 1820 to 1875. The maximum mortality is reached at the age of twenty-five. Between the ages of twenty and forty years 40 per cent. of all the deaths occur from this disease.

Probably this is not a high figure, because many persons are reported to have died of pneumonia, when they were actually suffering from phthisis, and died from a pneumonia engrafted upon it, which should be regarded only as a collateral cause of death.

He was of the opinion that there are healthy retreats in the United States where patients and those predisposed to phthisis may enjoy a comparative immunity from the ravages of the disease. He also believed that a proper spread and application of the true principles of hygiene would reduce the percentage of mortality very materially.

Dr. Garrish moved that the subject-matter of this paper be taken up for discussion at some future meeting.

Dr. O'Sullivan seconded the motion with some remarks.

Dr. Willard Parker further seconded the motion, and believed that the subject should be kept under discussion until some conclusions are reached with which the Academy of Medicine will be satisfied as representatives of the profession of the city of New York.

Dr. Hubbard moved that the discussion of the paper take place at the meeting following the next stated meeting. Carried.

Adjournment.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from March 28th to April 3d, 1875.

Gray, C. C., Surgeon.—When relieved by Assistant Surgeon Jackson, assigned to duty as Post Surgeon at Fort Brown, Texas. S. O. 52, Department of Texas, March 22, 1875.

Whitehead, E., Assistant Surgeon.—Granted leave of absence for one month on Surgeon's certificate of disability. S. O. 52, c. s., Department of Texas.

Adair, G. W., Assistant Surgeon.—Assigned to temporary duty at Ringgold Barracks, Texas. S. O. 52, c. s., Department of Texas.

Jackson, D., Assistant Surgeon.—Assigned to duty as Post Surgeon at Fort Duncan, Texas. S. O. 52, c. s., Department of Texas.

Medical Items and News.

A Department of Public Instruction in the Medical Society of the County of Kings.—The following extract from the minutes of the Kings County Society will explain itself:

The Committee, to whom was referred that portion of the report of the Censors on the President's Address relating to the establishment of a Department of Public Instruction, having given the subject careful consideration, beg leave to report:

That the profession of medicine is the natural guardian of the public health, and is the only competent educator of the people in matters pertaining to the preservation of health. That the profession has, heretofore, held itself aloof from formal presentations to the public of the special instruction on which it could speak authoritatively, and that the only medical instruction that has been offered to the public has been through the medium of the Patent Medicine Almanacs, the advertisements of empirics, occasional voluntary contributions to the newspapers on special subjects, and the limited number of more or less valuable books on the care of the young and on general hygiene.

That the profession has everything to gain, in the way of dignity and influence, through the well instructed intelligence of the constituency to which it ministers. The management of disease can alone be safely intrusted to the technically educated, and the discrimination between those who are and those who are not thus technically educated can be made by those, only, who have the requisite information on which to base accurate judgment.

That popular information on medical matters is demanded is sufficiently evident. Illustrations of this fact are furnished by the violent discussions on Vaccination in the daily journals a few years since, the liberal reports of Proceedings of Public Health Associations, the wide circulation of Brown-Séquard's Lowell Lectures, the report in last Sunday's *Times* of Dr. Peters' paper on Pneumonia before the Medical Library and Journal Association, and the five broad columns of the N. Y. *Tribune* of Monday containing Dr. Hartt's paper before the same Association on Medical Decadence.

That the rapid increase of medical investigation renders it impossible that any one man can be the accepted exponent of any one branch of medical science, and individual contributions to popular medical instruction are so likely to be tinged with the personality of the contributor as not only not to command the approval of the profession at large, but also not to command the unqualified acceptance of the public to whom they are addressed.

That the several State and Metropolitan Boards of Health are so surely working their way up to the approval and confidence of the profession and the public, as to confirm the opinion that the accumulated and generalized medical wisdom, of which their official character makes them the recognized exponents, is of value and of interest to the public.

That the representative character of the County Societies should carry authority to their utterances on matters which they might regard as useful or timely for general information.

That, in view of the foregoing facts, the Medical Society of the County of Kings may prudently take the initiatory steps towards making the County Societies the authoritative and competent sources of popular medical enlightenment and instruction.

Your Committee, therefore, recommend the appointment of a committee to be called the Committee on Public Instruction, whose duties, jealous of the dignity of the profession and alive to the needs of the public, are defined and restricted as follows:

1. The Committee of Public Instruction shall consist of five members, whose term of office shall be for one year, commencing with the February meeting. They shall be appointed by the President.

2. Meetings of the Committee of Public Instruction shall be held at least once in each month, of which reports, with the names of absent members, shall be made at the next succeeding meeting of the Society. If any member shall be absent from two successive meetings he shall cease to be a member, but the President may reappoint him.

3. It is the purpose of the Committee of Public Instruction to communicate useful information on medical subjects to the public through the medium of the press. To this end it shall obtain, prepare or select suitable papers, which it shall send for publication to such newspapers or periodicals (not medical) as it may select. The writer's name or other means of identification shall not accompany any original (specially prepared) paper, nor shall the name of the author of any selected article be publishad when such author is a member of this or any neighboring Society.

4. In the report required in section two, the name of the author (when known) may, and the subject of each accepted paper shall be given, and, if the Committee of Public Instruction so recommend, any such paper may be read to the Society and discussed either before or after its publication.

Respectfully submitted.

Benj. F. Fessenden.
Chas. Corey.
Alexander Hutchins.

Dr. Ernest Sansom, of London, and the County Society.—Dr. Sansom has recently been elected an honorary *member* of the Medical Society of the *County* of New York—not Honorary *Fellow* of the Medical Society of the *State* of New York, as our English exchanges have it.

The *State* of New York embraces a territory three hundred and thirty-five miles long by three hundred and eight miles in its greatest width, an area of 47,000 square miles, or very nearly as large as England. There are sixty *counties* in the State, all but four of these having societies called county societies. These send delegates to a State Society. New York *County* is the smallest of the whole, being limited to the area covered by the *City of New York*.

The other States of the Union have, most of them, State Societies, which send delegates to one society called the "American Medical Association." The "Medical Society of the County of New York" has a membership of about six hundred, and is the largest county society in the United States. It is this society which has honored itself by electing Dr. Sansom an honorary member.

The Questions of the Examination at the Medical College of Ohio are published in the *Clinic* of February 27th.

Female Medical Students in India.—The Government of Madras, on January 11, issued its general orders on the admission of female students to the Madras Medical College, and on the course of study to be pursued.

Maryland University School of Medicine.—At the commencement of this school, held on the first of March, fifty candidates received the degree of M.D.

A Lucid Description.—A hundred and fifty years ago, opium was highly prized, as it is at present, but its action was so little understood that a noted author said of it: "When it is given in too great a quantity it so thickens and glues the humors in the brains by its viscous parts, that the spirits which come forward to succor, not being able to dissolve this viscosity, are forced to stop and congeal likewise, by little and little, until at last they lose all their motion, whence it comes to pass that many do die upon the taking of opium."

Dupes of Quackery.—Some simple folks in West Boylston, Mass., have just been "duped" in a very contemptible way. Two well-dressed scamps found out the deaf people in town, and then proposed to cure them for from $50 to $100 each, according to their extremity, asking, of course, an advance payment. Some paid from $10 to $20 down, and were ornamented with a wire contrivance which came over the top of the head and down behind the ears, and which they were to wear four hours a day for eight weeks, as it would keep up a current of elecricity that would ultimately restore the functions of hearing entirely. The swindlers, of course, have gone, but some of the dupes are still wearing their foolish headgear.

The Medical Association of Alabama will hold its next annual session on the second Tuesday in April (the 13th), at Montgomery. This Association has just been constituted by the Legislature the State Board of Health.

The Michigan State Medical Society will hold its ninth annual meeting at Detroit, commencing June 9th, 1875.

Suspension of a Canada Medical College.—The Victoria Medical School of Toronto was closed suddenly in the middle of the winter session. The reason assigned is the want of a sufficient number of students to remunerate the Faculty.

Homœopathy in the Brooklyn Health Board.—On the 26th of March, Dr. Van Clief, a homœopathic physician of Brooklyn, was appointed Sanitary Inspector against the remonstrances of Drs. Conkling and Hutchinson. Dr. Conkling said it was an insult to them, and Dr. Hutchinson said, if the Board was going to countenance such action, eclectics and clairvoyants should be appointed, in order that no injustice should be done; and he, therefore, moved that Mrs. Parkes, a clairvoyant, be appointed. Dr. Van Clief was, however, appointed as Sanitany Inspector, General Jourdan, Alderman Bergen, and Commissioner Palmer voting for him.

New Members of the County Medical Society.—William Porter, Washington Heights, a graduate in Medicine at the University of Buffalo, N. Y., in 1851; Simeon A. Foster, 333 W. 48th st., a graduate in Medicine at the Medical Department of the University of the City of New York, in 1867; John Jauncey Ketchum, a graduate in medicine at the College of Physicians and Surgeons, in 1867; William Newman, a graduate in Medicine of the University of the State of New York in 1874; Frank Richard Newman, 296 East Broadway, a graduate in Medicine at the Bellevue Hospital Medical College in 1871; John Parsons, a graduate in Medicine at the University of Iowa, at Keokuk, in 1864, at the Chicago Medical College in 1868, and at the Bellevue Hospital Medical College in 1875; Charles Eli Bruce, 222 East 32d st., a graduate in Medicine at the Bellevue Hospital Medical College in 1873; Welcome Whipple Sprague, Third ave. and 82d st., a graduate in Medicine at the Bellevue Hospital Medical College in 1875; David F. Fetter, 262 W. 34th st., a graduate in Medicine at the College of Physicians and Surgeons.

The American Dental Society of Europe will meet at Homburg, near Frankfort-on-the-Main, on the first Monday in August next.

Internal Use of Sea-Water.—Dr. E. Lisle recommends sea-water as a valuable remedy in strumous, dyspeptic and anæmic cases. He has used it in the form of bread made with fresh sea-water, and also in combination with syrup, and with syrup, rum, and some flavoring essence.

The Philadelphia Schools have had large classes during the past winter, the Jefferson Medical College having conferred the degree of Doctor in Medicine upon one hundred and seventy, and the University upon one hundred candidates.

The Berlin Academy of Sciences has established a fund for the purpose of maintaining in that city a certain number who will devote themselves solely to scientific investigation, and will be relieved of duty as lecturers, teachers, etc.

Appointments on the Resident Staff of the Hospitals.—*Bellevue:* Junior Assistants, Drs. John C. Kendall, John C. Cochrane, Raphael F. Hine, H. M. Silver, D. L. Wallace, P. Smith. Provisional Assistants, C. H. Thomas, R. Van Santvoord. Dr. P. Smith passed at a previous examination, but there being no vacancy at that time his appointment as junior assistant was deferred until the present. *Charity:* John H. Swazey, Fred'k M. Trask, Thos. W. Fullerlove, John T. Larew. Provisional, Nath'l Pinto.

The Medical University of Pennsylvania.—The Library of this school has been increased by the addition of the Library of Professor Stillé, numbering 3,000 volumes, and has also received from Isaiah V. Williamson, Esq., property valued at $100,000.

The Alumni Ward Fund now amounts to $10,000.

The New York Dispensary for Diseases of the Skin has been reopened at No. 203 East 27th street. *Surgeon in Charge,* Henry G. Piffard; *Assistant Surgeons,* William B. McGuire and Charles Schmidt.

A Card.—The late Dr. Westervelt, who was, in 1832, the Health Officer of the Port of New York, a short time before his death, wrote an elaborate paper upon the introduction of Cholera into New York City, in 1832. It is thought that this paper was placed in the hands of some medical friend for publication.

As said paper now becomes of great value as corroborative evidence to facts which have already been collected, as to the Cholera Epidemic of 1832, it is earnestly asked that the holder of said paper will communicate with the writer, whose address may be obtained from the publishers of The Medical Record.

Weekly Bulletin of Meetings of Societies.

Monday, April 12.—N. Y. Ophthalmological Soc.

Tuesday, April 13.—Amer. Microscop. Soc.; Yorkville Medical Assoc.

Wednesday, April 14.—N. Y. Pathological Soc. "The Relation of the Urine to Diseases of the Skin," by L. D. Bulkley, M.D.

Thursday, April 15.—N. Y. Academy of Medicine; Medical Assoc. Eastern Dist. of Brooklyn.

Friday, April 16.—Medical Library and Journal Assoc., "On the Elements of Diagnosis in the Different Stages of Disease of the Hip-joint," by Dr. C. F. Taylor

Original Communications.

TRACHEOTOMY WITH THE GALVANO-CAUTERY.

By GEO. R. FOWLER, M.D.,

BROOKLYN, N. Y.

On March 17th, 1875, I was called to meet in consultation Dr. Domfield, in a case of membranous croup, occurring in Willie G., aged seventeen months. The child had been attacked three days before, and now presented the peculiar appearance of croup in its last stage; the alæ nasi being widely dilated, the epigastrium sinking deeply at each inspiration, and almost complete cyanosis existing. Pulse 140 and soft. Several convulsions had occurred.

The attending physician had given emetics, etc. I recommended inhalations of lime-water vapor, potass. bromid., and tracheotomy. The father hesitated in giving his consent to the latter, and we agreed to meet in an hour and invite Dr. Figneira to see the case.

At seven o'clock, no change for the better being perceptible, Dr. Figneira, Dr. Domfield and myself concurred in the advisability of opening the trachea. This I proceeded to do by means of the galvano-cautery.

A Byrne's caustic battery was used, of the very portable pattern manufactured by Shepard & Dudley, of New York. The knife was the short scalpel-shaped one, used by Dr. Byrne in some of the operations upon the uterus, held in a hard rubber insulated handle, and connected to the battery by the usual method.

The child having been placed upon a dining-table, the shoulders supported by a pillow, Dr. Figneira proceeded to administer chloroform. The battery was placed upon the table, at the child's left side, the connections made, and the plates lifted out of the solution.

All being in readiness the plates were lowered in the solution, and upon the knife becoming incandescent the first incision was made in the usual location, viz., from the cricoid cartilage to within a few lines of the sternal notch. The cautery knife was held precisely as one would hold an ordinary pen. The tissues were divided with extraordinary facility, the slightest contact being sufficient. The edges of the wound gaped widely, not the slightest trace of blood being visible to obstruct the view until the isthmus of the thyroid was reached, when an undue amount of haste was exercised on account of the patient having stopped breathing. At this point about one drachm of blood was lost, and even this would not occur in a similar case, as artificial respiration would have soon restored the patient for the few seconds needed to complete the operation.

Upon reaching the rings of the trachea the latter was easily recognizable. The caustic knife was now laid aside, a tenaculum inserted to steady the trachea, and the latter opened with an ordinary bistoury. Here a very small portion of blood was again lost, during section of the mucous membrane lining the trachea, and the areolar tissue adherent to the surface of the divided rings. The tube was readily inserted, and our little patient was soon comfortably breathing.

He rallied from the operation remarkably well, and drank brandy and water freely. The pulse remained as before for an hour, and then grew stronger and steadier. Not more than two drachms of blood was lost, and, as before stated, a portion of this could have been avoided.

The patient slept comfortably for several hours, pulse and respiration constantly improving. The tube was occasionally removed and cleaned. At three o'clock, seven hours after the operation, a convulsion suddenly occurred. The tube was removed and found to be perfectly clear. At six A.M., three hours later, another convulsion occurred in which the patient expired.

The use of the galvano-cautery in tracheotomy was first introduced by M. Amussat in 1870. His patient, a lad of thirteen, was in imminent danger of suffocation from a foreign body lodged in the trachea. Dr. Amussat's method of operating consisted in passing a curved needle, armed with a double platinum wire, through the tissues overlying the trachea, and including a small portion of the anterior wall of the latter, in the loop which was formed by the needle emerging a short distance from the point of entry. The ends of the wire loop were then attached to the battery, and section made of the included tissues by gentle traction, no hemorrhage occurring. The foreign body was coughed out through the opening thus made, and in a week the wound was healed.

The advantages of cutting down to the trachea with the galvano-cautery knife are obvious. In the first place, the freedom from hemorrhage is a very important consideration. Secondly, as these operations are almost always done in the night-time, the incandescent platina knife lights up the bottom of the wound, and enables the operator to recognize almost every layer of tissue cut through. Thirdly, the wound opens widely and evenly, thus dispensing with retractors, and enabling the operator to obtain a distinct view. Fourthly, rapidity of operating, no time being lost in sponging and tying bleeding vessels.

I think it better, on reaching the trachea, to open it with a bistoury instead of with the cautery knife, for the reason that there is a greater immunity from danger of setting up a severe tracheitis; besides which there is very little blood lost in the section of the rings of the trachea by the common method. The inhalation of the steam from the hot knife, as it enters the trachea, would still further embarrass the respiratory efforts.

M. Bourdon, in 1873, described the operation as performed by M. Verneuil with the galvano-cautery knife. He speaks of the danger of cauterizing the trachea, and also of perforating its posterior wall. The avoidance of this danger by opening the trachea itself with a common scalpel or bistoury was proposed by MM. de Ranse and Muron in detailing a series of experiments performed upon dogs with the actual cautery in tracheotomy.

* * *

Dr. Francis Condie, M.D., who died on the 1st inst., in Delaware, at the age of 80, was a leading member of the medical profession in Pennsylvania. He was born in Philadelphia in 1796, and received his diploma at the University of Pennsylvania in 1818. He published in 1817 an abridged edition, with notes, of "Thomas's Practice of Medicine;" in 1824 a "Course of Examinations for the Use of Medical Students;" in 1831, a "Catechism of Health." His principal work was a "Practical Treatise on the Diseases of Children," published in Philadelphia in 1850, and of which four editions have been issued. Dr. Condie edited some of Dr. Fleetwood Churchill's principal works, and contributed to several medical periodicals.

A NEW SPLINT FOR FRACTURED JAW.

By FRANCIS H. ATKINS, M.D.,

ACTING ASSISTANT-SURGEON U. S. ARMY.

On the 6th of August, 1874, I was called to see a tramp (aged about twenty-six years), near Fort Wallace, Kansas, who, for a petty theft, had, the previous afternoon, received frontier justice at the hands of the aggrieved owner.

His head was badly bruised, cut, and swollen; the eyes closed; nose and mouth full of blood; his lower jaw fractured in two places, and the interior of the mouth so much lacerated and swollen that he could scarcely breathe or swallow. The jaw was broken (1st) at the angle on the right side, and (2d) between the left canine and left lateral incisor. The fragment—embracing the whole of the front and right side of body of jaw—was depressed, retracted, and drawn to the left side, in each direction about one-third of an inch, bringing the incisor behind the adjacent canine and below it; the right lower corner of face being strikingly depressed. At the angle there was no apparent displacement, though very free motion, crepitus, etc.

There being a complete absence of all the usual facilities for treating such cases, an attempt was made to wire the pieces together at the anterior fracture, but it failed, and on the 10th I applied a splint which I devised for the occasion, made of simple materials, that might be had at sea, etc., where such an emergency might arise.

The splint was made of a piece of hoop-iron, two inches long, and from one-third to one-half inch wide, with its corners filed smooth, and four small holes punched in it to correspond respectively with the spaces between the middle incisors, and between left-middle and lateral incisors, the line of fracture, and the space between the two left bicuspids.

The object in view was to attach a brace to the left side of jaw, so that the large fragment could be drawn forward, bound to it, and so be held in place. With a dental drill a small hole was made between the lateral incisors, and a space filed between the middle incisors. Between the bicuspids a natural opening existed near the gum.

The splint, being curved by stout forceps to suit the curve of the jaw, was first wired to the bicuspids through the corresponding hole in the splint; then one end of a fine, well-annealed, iron wire (suture wire) was passed into the hole in the splint corresponding to the space between the middle incisors, and its other end through the hole opposite the space between the left lateral incisor and canine, and through the corresponding interdental apertures into the mouth, where the ends were seized by small forceps, turned forward again and brought through the aperture between the left pair of incisors and out through the splint upon its anterior surface. By this means a loop was found for the left central and one for the left lateral incisor. As soon as gentle traction was exerted on the wire ends, the fragment moved steadily upward and forward and towards the right, with an ease that was fairly surprising when contrasted with the great digital force previously required in attempting to replace the fragment.

When the wire was drawn firmly and clinched, the replacement of the fragment was absolutely perfect, and the outline of the face fully restored, and both remained so. A Barton's occipito-parietal bandage finished the dressing. Although the patient—against orders—constantly opened his mouth for greater ease in swallowing, and even masticated to a certain extent, no further adjustment was required. Owing to the splint having been a trifle wider than necessary, a small abrasion of the lip occurred after several weeks, but was easily remedied, and might have been obviated had the splint been narrower. The splint caused no discomfort, and the man often remarked that his jaw "felt so easy."

Disinfectants were used freely in the mouth until the lacerations healed. He was well in about six weeks, having worn the splint continuously. In many cases sufficient interdental spaces already exist, but the injury to the teeth in this case was trifling compared with the serious condition of the jaw. A subsequent search through all the medical literature—standard and periodical—I had access to, has made me believe this splint sufficiently novel to describe in the RECORD—that noted in the Bellevue Hospital Report, MEDICAL RECORD, March 16, 1874, not excepted. Its simplicity would seem to recommend it in cases of much injury to the soft parts.

A CASE OF NOMA FOLLOWING INTERMITTENT FEVER: RECOVERY.

By JOHN H. RIPLEY, M.D.,

NEW YORK.

On August 24, 1874, I was called to Morrisania to see Alma V., æt. 4 years, a previously healthy and robust German girl. The mother stated that about 4 P.M. on the 16th the child was taken with a severe chill, which lasted an hour, and was followed by a high fever, which continued till 8 A.M. next day. After the subsidence of the fever she appeared pretty well until 4½ P.M. (17th), when she was seized with another chill, which was succeeded as before by fever, lasting till 9 o'clock on the following morning. These symptoms had been repeated daily since until the last three days, during which the fever had been continuous. Her appetite had declined from the beginning of the sickness, and for several days her stomach had rejected the most simple diet. Her bowels were constipated, and urine scanty and high-colored. I found her restlessly tossing about the bed, and her extreme nervous irritability made a careful examination difficult. She was much emaciated, her countenance sallow, and skin hot and dry. The tongue was moist, but coated. Respiration 40 and pulse 130 per minute; temperature, 103½°; abdomen retracted, and its muscles flaccid; heart and lungs normal, except slight bronchitis; spleen, markedly enlarged. The physician in attendance had administered quinine in various forms, both by stomach and rectum, but it had not been retained. Small quantities of ice-cream and mutton soup were recommended as nourishment, and the following prescription ordered:

℞. Quiniæ sulphat.............. gr. xxiv.
Elix. tarax. comp............ ℥ iij.
M. S. Two teaspoonfuls every two hours.

25*th*, 12 M.—Pulse 120; temp. 102°. Slept better than for several nights, and has retained medicine and nourishment. Is less restless and looks better. My attention being called to "sore mouth," I found a slight ulceration at the borders of the gums of left upper incisors, and added to previous treatment small doses of chlorate of potassa.

26*th*, 12 M.—Pulse 120; temp. 99°. Takes nourishment well, and has been playing with her toys this morning. Quinine mixture to be given every four hours. No other change in treatment.

28th.—Mother says child's face got very much swollen yesterday, and her breath smelled so badly she could not stay near her. I found the left side of upper lip and left cheek enormously swollen, and the submaxillary and lymphatic glands of same side enlarged, and cellular tissue of neck infiltrated. The lip was smooth, pale and shining, and painful to the touch. On raising it and examining its mucous surface, I discovered a portion situated just within its angle, the size of a two-shilling piece, involved in an ash-colored slough, from which flowed a thin and very fetid fluid. On removing the sphacelated mass, a deep ulcerating and comparatively bloodless cavity was exposed, which extended half an inch above the reflection of the mucous membrane upon the gums. The superior maxilla opposite was denuded to a considerable extent on both sides, and the two incisors had fallen out. Patient was quite drowsy; Pulse 88; temp. 99°. The whole diseased surface was thoroughly cauterized with pure carbolic acid, and ten grains of chlorate of potassa, and five drops of the tincture of muriate of iron, directed to be given every two hours; also egg-nog or milk-punch every three hours.

29th.—Considerable diminution of swelling of the parts, and less fetor. Two more teeth (canine and first molar) have fallen out. Pulse 88; temp. 99°. Applied solution of equal parts of carbolic acid and water and continued medicine and nourishment.

31st.—Patient sitting up, and swelling nearly gone; no extension of ulcer; appetite returning. Pulse 92; temp. 98.6°.

September 1st.—Looks feeble; has remained in bed to-day and refused food; ulcer granulating. Ordered brandy to be increased and potassa mixture to be continued at intervals of four hours.

3d.—Yesterday, sat up part of the day, and had a fair appetite, and to-day continues better.

6th.—Patient gaining in flesh, and ulcer rapidly healing.

15th.—Contrary to instructions, the medicines were discontinued on the 8th. On the 12th, the appetite declined, and the mouth began again to be painful, and its odor offensive. I found the cheek considerably swollen, and at site of old ulcer the disease was making fresh ravages. A resumption of the treatment soon checked the relapse, and effected a permanent cure. On the 23d of the following month I removed, with my dressing forceps, a necrosed triangular piece of the superior maxilla, whose base contained the cavities of the four lost teeth, and whose sides measured about an inch each. The resulting deformity of the face is marked. The lip is thinned by loss of tissue, and, unsupported, sinks back into the mouth, giving the child a senile expression.

I have given the history of the malarial fever in this case somewhat fully for two reasons. 1. It appears to me to have been the sole cause of the secondary and more grave disease; for, as I have before stated, the child had enjoyed excellent health previous to this illness, and, I may add, took no mercury during her sickness. 2. It illustrates the value of the Compound Elixir of Taraxacum as a vehicle of quinine. My attention was called to it several years ago by Prof. Jacobi, and, since that time, I have almost invariably prescribed it with quinine, when administering the latter to children. It completely covers the bitter taste of the salt, and is rarely vomited, even by infants a few months old. The original formula, published in the *Am. Journal of Pharmacy*, January, 1870, has been modified a good deal by different apothecaries, and some of them have improved it—notably, Bendiner & Becker, corner of 10th street and 3d avenue. The quinine should not be dissolved nor the mixture kept too long before using. The proportion is about a fluid drachm of the elixir to a grain of quinine.

The course of the local disease shows, I think, that it was controlled by large doses of chlorate of potassa.

213 E. 53d Street.

CASE OF

PERITYPHLITIC ABSCESS.

By J. H. POOLEY, M.D.

YONKERS, N. Y.

December 5th, 1874, I was called to see Annie M——, a fine healthy-looking Irish girl fifteen years of age, who had never had any serious illness in her life.

For two weeks before I saw her she had been complaining of obscure uneasiness, increased at times to rather severe pain, referrible mainly to the right iliac fossa, and spreading somewhat over the surface of the abdomen. I found her in bed, lying on her back, with her legs drawn up, with an anxious expression of countenance, and very much afraid of being touched or moved; skin somewhat hot and dry (temperature not taken), tongue coated, pulse 100, appetite gone, bowels obstinately constipated.

She complained of pain in the right iliac fossa, and in the hip and knee, that in the hip being most severe. There was tenderness on deep pressure in the iliac region, none over the abdomen; complained of severe pain when the hip was moved. Ordered hot poultices to be applied over the iliac region, morphine to the extent of relieving pain, and five grains of sulphate of quinine three times a day.

Dec. 6th.—Much freer from pain, partially under the influence of morphine; takes abundance of fluid nourishment, milk and beef-tea; lies in the same position, with the thigh flexed at right angles to the pelvis, and rigidly fixed, resists any attempt to move it; abdominal tenderness about the same.

The patient continued in almost the same condition, without any daily alterations worthy of notice, until Dec. 10th, when there was an increase of tenderness in the right ilium, which also extended pretty generally over the abdominal surface, increase of fever, with great restlessness; refuses almost all nourishment; has had one hard passage from the bowels since last record. Increased the quantity of morphine, continue other treatment.

Dec. 11th.—Condition much the same as yesterday; tenderness increased; has vomited some greenish material. I think I notice to-day, for the first time, some fulness in the right iliac fossa. Continue treatment.

Dec. 12th.—The swelling is quite perceptible, fever higher, pulse 110, pain not so severe.

Dec. 15th.—Has had a slight chill; at the time of visit, 10 A. M., is sweating profusely, swelling increased, otherwise condition unchanged, pain more tolerable, takes nourishment better than for the last few days. Same treatment.

Dec. 20th.—Much worse. pulse 120, moaning with pain, abdomen very tympanitic, vomits frequently a greenish material. and is much distressed thereby.

Swelling quite prominent, cannot tell whether there is fluctuation, for the simple reason that it is so tender she would not even permit the fingers to approach it; proposed to cut down upon and open the abscess, which I felt quite sure existed, but the parents would not listen to it. Increased the dose of morphine, and substituted warm fomentations for the poultice, which seemed to distress her by its weight.

Dec. 24th.—Opened the abscess. The patient being placed fully under the influence of ether, an incision three inches in length was made about an inch and a half above Poupart's ligament, but not exactly parallel to it, being rather over the greatest prominence of the swelling. The incision was carried down through the various layers, but without being able to distinguish them accurately, they were so blended together by inflammatory action, until the fascia transversalis was reached; the moment this was opened there was a tremendous gush of matter (estimated at nearly half a pint) of a dirty-gray color, and so unbearably offensive that I was obliged to retreat for a moment into the fresh air. After the evacuation of the abscess the finger could be introduced into a considerable cavity, where the cæcum could be distinctly felt, and also the iliac artery plainly pulsating under the finger. A tent of lint was introduced, a large poultice applied, and the patient put to bed, ordered to be kept very quiet, and morphine if pain was complained of, otherwise not. Visited the same evening; she was found very comfortable, had not needed any morphine; on changing the dressing, some shreds of necrotic connective tissue were drawn out of the wound.

Dec. 25th.—Patient in excellent condition, free from pain, but quite weak; while syringing out the abscess with a solution of carbolic acid ʒ ss. ad Oi., there was discharged what appeared to be the whole appendix vermiformis in a sloughy, pulpy condition: no foreign body was found at this or any other time, though of course one may have been discharged in the first violent gush of matter when the abscess was opened. Ordered daily syringing out with solution of carbolic acid, and to take ten drops of tinct. ferri chloridi every three hours.

From this time everything went on excellently well; the patient improved day by day, and though the discharge continued free and had a feculent odor for the first week, it then began to diminish, and completely lost its odor. Picked oakum was substituted for the poultices, and she began to sit up, though the abscess did not entirely close till the beginning of February, 1875, at which time it was completely healed up, and the patient is now in perfect and robust health, without the slightest remaining inconvenience from her recent dangerous and alarming illness.

This is the first case of the kind which I have encountered, and therefore I have little or nothing to add by way of remark to the simple record given above.

No doubt it would have been better to have opened the abscess a few days earlier, but, as already stated, the parents would by no means consent until it was almost forced upon them. It seems to me that what may be called the anatomical method of opening by a free, regularly planned incision, is preferable to any form of puncture, and, if other cases occur to me, I shall confidently follow it until convinced of the contrary.

This case is referred to (as "communicated") by Dr. Gouley in his recent admirable paper read before the State Medical Society, and I place it on record to complete that reference, and as a contribution to the literature of an important and interesting subject.

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DRY SYRUP is the name given to concentrated medicinal compounds in powders, which, when dissolved by the aid of heat in the proper menstruum, make the syrup of the article employed. The *Chemist and Druggist* says that the plan seems well adapted to almonds and similar articles, the liquid syrup of which is with difficulty kept from change.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES IN TREATMENT.

WAS IT TYPHOID FEVER?

THE interest in the following case turned upon the difficulty in diagnosis. A male patient, about forty-five years of age, was admitted four days ago, who said that he had been sick eight weeks, and that his trouble began by getting "all chilled" while driving a truck. His answers, however, were given in such an indifferent manner that but little reliance could be placed upon them. He also stated that about *ten days* ago he got "swelled all over," but the house physician said there was no general dropsy present when he came in. Since admission to the hospital his temperature had varied from 100° to 103°. At first there were morning exacerbations, but during the last two days slight evening exacerbations had been present. It should, however, be stated here that quinine had been administered, and the cold pack used several times. Although the temperature had pursued an erratic course since admission, doubtless the tendency in that direction had been increased to some extent by the treatment employed.

There was nothing specially characteristic about the countenance of the patient. The tongue was red at the tip, brown and dry upon the edges, and the brownness and dryness extended well back towards the roots, but there was no sordes upon the teeth or lips. His respiration was easy and full, and was both abdominal and thoracic. Upon percussion, some dulness was found over the lower portion of both lungs posteriorly. Upon auscultation, feeble respiration was discovered over the left lung behind; but over the right, respiratory murmur was absent, except upon full inspiration or with cough, when fine crackling sounds could be heard. There was no bronchial breathing present, but dry râles were heard over both lungs. Vocal fremitus was more marked upon the right than upon the left side, especially over the region where the crackling sounds were heard.

The first sound of the heart was absent at the apex, and was very indistinct over the entire precordial region.

Firm pressure gave rise to slight gurgling in the right iliac fossa, but did not produce any pain. A slight amount of tympanitis was detected by percussion, and the blow gave rise to some pain, particularly over the right iliac region. There had been *only one* loose discharge from the bowels since admission, and that was of a yellowish color.

The capillary circulation was feeble, indicating failure of heart power rather than obstruction to the return circulation. His pulse was 108, irritable, and easily compressed. The pupils were normal, and the urine contained only an abundance of lithates.

The spleen and liver were of normal size. Over the abdomen, thorax, upon the arms, and to some extent upon the legs, was seen an eruption that consisted of spots about two lines in diameter, of a circular shape, a trifle elevated, and did not disappear upon pressure. The spots were not of a bright rose color, but had more of a mulberry hue. During the last two days, some of them had presented more of the appearance of the characteristic rose-colored eruption of typhoid fever. The blood of the patient had not been examined, and there we have the complete history of the case. The question was asked, "What is the matter with this man?" The visiting physician expressed the opinion that the diagnosis could be narrowed down so that it would rest between two diseases—namely, typhoid and remittent fevers. He was inclined to the opinion, however, that it was a case of typhoid fever, but at the same time regarded it as one of those knotty affairs that required careful study before a correct diagnosis could be made.

If the statement of the patient that he was taken sick eight weeks ago was true, and his present condition was but a continuation of that attack, it could hardly be said with safety that the eruption seen was that of typhoid fever. If, ten days ago, the patient was attacked with typhoid fever, the diagnosis could hardly be established by the appearance of the eruption, for the ordinary characteristics were absent, and it had not been observed a sufficient length of time to determine how long it would continue in one place or how long it would remain upon the patient.

The remissions of remittent fever may cease after the first four or five days, and then the disease continues as a continued fever. When this occurs, the distinction between it and typhoid fever cannot be drawn except by an examination of the blood. (Pigment is present in the blood of a patient sick with remittent fever.)

As a rule, there is no eruption present in remittent fever. Occasionally, however, an eruption is present, but it has no characteristic appearances, and is probably due to some nervous or blood changes. The fact that a patient has had one liquid discharge from the bowels, when taken in connection with other symptoms, may be of great value in making a diagnosis. Dry râles are to be expected in a case of typhoid fever, and the pulmonary œdema, such as was present in this case, is not of infrequent occurrence. The pulmonary œdema accounts for the dulness upon percussion. Cases of typhoid fever in which the temperature pursues an irregular course are not very infrequent. At this season of the year and in this locality, where malaria is present in abundance, the regular course of typhoid fever is very liable to be changed. The condition of the pulse, tongue, etc., clearly indicated the use of stimulants and nourishment, whatever the disease shall prove to be.

PARENCHYMATOUS HEMORRHAGE.

This case was one that suggested some thoughts concerning the varieties of hemorrhage the surgeon may meet with, and the measures to be resorted to for controlling them. The special form, however, to which attention is directed in this note is called *parenchymatous*, and is that which comes from minute arteries and radicles of veins. It is best described by the term "welling up." For instance, in this case it came from a deep-seated wound in the neck after an operation, and it was remarked that the same thing might occur in connection with deep-seated wounds in the perinæum and elsewhere. After all the arteries have been secured, all the veins compressed, and practically all oozing from the surface has ceased, still this form of hemorrhage may occur and prove troublesome to the surgeon. The wound fills up rapidly; the blood "wells up" and overflows. It was remarked by the surgeon that this kind of hemorrhage is usually quite easily arrested by packing the wound with lint, either with or without any styptic (the supposition is that every vessel has been ligated that is necessary), and then bringing the edges together and securing them with a continuous suture. In this manner the entire wound is packed and subjected to the pressure of the lint. At the end of twenty-four or forty-eight hours remove the sutures, allow the edges of the wound to gape, but do not remove the lint until suppuration has been established sufficient to float it out, or allow of its easy removal. By the time this amount of suppuration has been established, sufficient adhesive inflammation, as a rule, has been set up to permanently close the minute ramifications of blood-vessels that permitted the hemorrhage.

CONTRACTION OF CICATRIX IN CASES OF EXTENSIVE BURNS.

A female patient was noticed who had an extensive ulcerating surface upon the legs, in consequence of a severe burn. To facilitate cicatrization, skin grafts had been set all over it. The question arose, Is the cicatrix formed in this manner as liable to contract and produce deformity as that which is formed when the ulcer is permitted to heal from circumference to centre unaided?

One of the consulting surgeons held that the cicatrix formed by grafting is less liable to give rise to troublesome deformities, because it is softer and more yielding, and therefore grafting should be resorted to in every such case, on account of the ultimate benefit that is to attend the process.

One of the visiting surgeons remarked that we had not yet had sufficient experience to enable us to decide with safety that the tissue formed by skin-grafting is any less liable to contract than when permitted to heal in the old-fashioned manner.

A METHOD FOR REMOVING LIGATURES THAT HAVE BEEN APPLIED TO VESSELS OF CONSIDERABLE SIZE.

It occasionally happens that the ligature thrown around a large artery, as, for instance, in the case in question, the femoral, after an amputation, delays coming away for a long time, because the destructive changes which are to occur in the coats of the vessel have been retarded in such a manner as to prevent its removal. This more commonly occurs after ligating large vessels, because there is greater liability of not completely severing the internal and middle coats when the ligature is applied, but it may happen after smaller arteries have been tied.

First, then, it is well to leave the extremities of the ligature full length, and tie them together at the end, so that it will be known to what vessel they belong. If their removal is delayed, it may be facilitated in the following manner:

Place a stick or pencil between the ends of the ligature, and then twist them into a cord by turning the stick around and around. Make sufficient tension upon the ligature to prevent kinking and continue to twist it until the knot in connection with the vessel is reached; then, slowly turning the stick, you will be able to make the twist in the ligature extend *beyond* the knot, and thus make additional constriction upon the vessel. Now, keeping the cord tense, lay the piece of stick upon the limb, and secure it with a piece of adhesive plaster. Perhaps the following day you will be able to make one or two more turns, being careful to keep the cord tense, so that it will twist the entire length, after which you will secure the stick as before. By pursuing this plan from time to time you may have the satisfaction of seeing the ligature come away entirely, perhaps within two weeks.

CIRRHOSIS OF THE LIVER.

The particular symptom noted in this case was diarrhœa alternating with constipation. It was regarded as an indication of chronic intestinal catarrh. It was remarked by the visiting physician that the existence of this condition in a person addicted to the use of alcoholic drinks, taken upon an empty stomach and undiluted, was a pretty certain sign of the beginning of cirrhosis of the liver; and that, in some cases, such a diarrhœa was the only symptom of the disease present.

CHRONIC VOMITING, ACUTE GASTRITIS, AND PLEURISY.

A few points were brought out by the visiting physician, while commenting upon the following case, that may be of some interest. The patient was a man about 40 years of age, a politician, who had been in the habit of using alcoholic drinks quite regularly for some time, and, as a result, had suffered more or less from vomiting. About two weeks previous to his admission to the hospital, he was exposed to cold, and, soon after, attacked with severe pain in the region of the liver, which was accompanied with tenderness, some fever, and was followed by a very great aggravation of the vomiting. His stomach became very irritable and rejected everything that was taken. The incessant vomiting had continued only a short time, when a hacking cough appeared. A moderate amount of tympanites was present. The patient was not jaundiced. How were these symptoms to be explained? First, the incessant vomiting was due to an excessive congestion of the mucous membrane of the stomach of an inflammatory character, and the exposure to cold had excited disturbances in a liver already under the influence of alcohol, which had given rise to the excessive congestion. In other words, it had changed a condition of chronic congestion into an acute inflammatory one. The gastritis was followed by duodenitis, and from this the inflammation extended into the bile-ducts, spread to the tissue of the liver, and gave rise to hepatitis. From the hepatitis, perihepatitis was developed, and that in turn gave rise to diaphragmatic pleurisy, which accounted for the short, hacking cough, etc. The perihepatitis had also given rise to peritonitis, which explained the presence of the moderate amount of tympanites. Thus the case was unfolded, and the above were believed to be the successive steps in its progress. Leeches had been applied over the region of the liver and stomach for the purpose of making a localized depletion, and in that manner to act upon the general inflammatory condition, through the nervous system.

Nothing that had been done for the patient had proved of very much service, and withal he was very sick.

In connection with this case the following prescriptions were mentioned:

For acute gastritis, such as occurs in cholera infantum:

℞. Calomel.. .... gr. $\frac{1}{6}$.
Acetate of lead..... gr. $\frac{1}{3}$.
Opium.............. gr. $\frac{1}{6}$.
M.

This may be administered every half hour. For the acute gastritis met with in cholera morbus, the following has been used with almost invariable success after administering from three to five doses:

℞. Acetate of lead......... grs. viij.
Acetate of morphia...... gr. i.
Camphor water.......... ℥ i.
M.

In this prescription the lead is precipitated, but that makes no difference except that it necessitates shaking the bottle before using. A teaspoonful is administered every fifteen minutes, or immediately after each vomiting spell, if it is rejected by the stomach.

Progress of Medical Science.

Another Case of an Extraordinarily High Temperature with Recovery.—In The Record for March 27th a case was referred to in which the temperature rose to 110° F., and recovery ensued. The following case, however, related by Mr. J. W. Teale, at a late meeting of the Clinical Society of London, is far more remarkable. It is as follows:

A young lady was thrown from her horse, in the early part of September, 1874, and sustained a fracture of two ribs and some obscure injury to the spine. In due time the fracture united, but pain and tenderness over the sixth dorsal vertebra persisted.

Symptoms of spinal meningitis set in, and the temperature, which had regained the normal shortly after the accident, began to rise. One month after the accident it was 101° F., and in another month it had reached 105°. Between the 8th and 12th of November, it fluctuated between 110° and 118°, reaching subsequently 122°, on two occasions, and falling in the interval to 114°. For the next three weeks the temperature varied between 108° and 122°. Throughout December, it fell as low as 110°, during the first half of the month, rising to between 112° and 114° during the second half; in the beginning of January, it rapidly fell to 104°, becoming normal on the 10th of the month. The general condition of the patient did not seem to have been one of extreme danger, except during the highest range of temperature. The pulse never rose above 120°, and the respiration was not notably embarrassed.

The details of the case, with the thermometrical charts, have been published in full.—*The Lancet*, March 6, 1875.

Extraordinarily Low Temperature after Exposure to Cold.—There have been a number of cases reported in which the temperature of the body has fallen very far below the normal standard and yet recovery has taken place. Bouchut has collected a large number of these cases. In this connection the following is interesting:

Professor Nicolaysen was called upon to treat a man forty-one years of age, who one winter morning was carried insensible by the police into the hospital. The man had been found in the street, where he had passed the night (the thermometer having stood at 21° Fahr.). The whole body was found to be cold, and the extremities were rigid. The skin was pale, and the respiration and pulse were weak and irregular: the pulse could not be counted. The clothing was removed from the patient and he was wrapped in blankets. After diligent rubbing he revived a little, and his limbs moved slightly. Some cold water, at a temperature of about 45° Fahr., was then injected per anum. Subsequently artificial respiration was tried in addition to the continued rubbing, and the temperature of the room was gradually increased. After half an hour a thermometer warmed to 104° Fahr. was introduced into the rectum, for the mouth could not be opened sufficiently for the introduction of the instrument. After eight minutes the instrument recorded a temperature of 76.4° Fahr. The temperature then began to rise, and the following were the observations made during the day:

9.00 A.M.,	Temp. of body,	79°	Fahr.		
10.00 A.M.,	" "	83°	"	Resp., 20.	Pulse, 48-60.
12.55 P.M.	"	90°	"	" 18.	" 76
6.40 P.M.	"	101°	"		

During the next day the pulse and temperature returned to the normal.

It was thought that the temperature of the patient had been lower than as stated above, for resuscitative efforts had been in operation for three-quarters of an hour when the first measurements were taken. The effect of the cold injection was thought to be very slight, but to determine what effect it might have had the following experiments were made: The same quantity of water at the same temperature was injected into the rectum of three individuals, among them the patient. The result was that after eight minutes the temperature was found to have fallen about 2¼ degrees. Nicolaysen concludes from this case that when no disease is present the temperature of the blood may be reduced to at least 81° Fahr., and yet the normal functions of the body may be again restored.—*Norsk Mag. f. Laeg.*, Jan., 1875.

THE DIAGNOSIS BETWEEN CALCULOUS AND TUBERCULOUS PYELITIS.—Dr. Basham, in writing on the above subject, gives the following three practical points to be considered in making a differential diagnosis in these two diseases: 1. The hæmaturia; its amount and frequency. 2. The purulent urine, in its time of appearance and constant or intermitting occurrence. 3. The presence or absence of progressive emaciation, with hectic fever, exhaustion, and death.

He says the hæmaturia in calculous pyelitis is occasional; in tuberculous diseases it is copious, and while the first stage lasts is continuous, there being no interval in which the urine is apparently free from blood.

In calculous pyelitis the purulent stage is slowly developed; the urine passing through a mucous stage of longer or shorter duration, succeeded by pus, which may appear intermittingly and may even for days be absent altogether.

In tuberculous disease, purulent urine succeeds the hæmaturia abruptly and almost immediately; there is no perceptible interval between the hæmaturia and the appearance of the pus. Moreover, the amount of pus in any given quantity of urine is far greater than is seen in the calculous form of the disease, and there is an amount of emaciation, accompanied by evening exacerbations of fever, never witnessed in the less fatal calculous form. This stage of the disease is sometimes accompanied by the development of a renal tumor, followed always by rigors and night-sweats, on account of the ureter becoming blocked by the increasing tubercular deposit in the submucous tissue of the tube. If a careful analysis be made of the antecedent symptoms, and due weight given to the order of their succession, a correct diagnosis may be thus formed.—*Practitioner*, March, 1875.

WOUNDS DRESSED WITH SILICATED COTTON.—M. Ollier has addressed a note to the French Academie des Sciences, and states that he finds great advantage in the use of the cotton dressing. One advantage is, that the dressings are made less frequently, which is important, because after each such occasion the temperature of the patient rises, and besides, the wound is exposed to the air, and consequently to the infectious germs that are in the atmosphere. But there is another advantage, which is, that, considering the matter of the absorption of infectious germs, it is important not to break the granulous membrane that covers the wound, while frequent dressings are apt to do this. To obviate such a danger more fully, he advises that the cotton be covered with a silicated bandage, so that while the dressing occludes the germs completely, as it appears to, it also is immovable. He urges that this improved method may prove to be very useful in army practice, in the transportation of the wounded.—*Jour. de Méd. et de Chir.*, March, 1875.

SPECULAR EXAMINATION THROUGH A TRACHEAL WOUND.—Voltolini reports a case in which a piece of a nutshell remained impacted in the trachea for ten months; its presence and exact location being finally diagnosticated by means of a new form of tracheal speculum devised by him, and its removal effecting a perfect cure. A child, aged ten, while playing with a bit of nutshell, placed it in the mouth, out of which it slipped into the larynx, and tracheotomy was rendered immediately necessary, by the dangerous suffocative symptoms which followed. An attempt to remove the tube was made some fourteen days later, but spasm of the larynx immediately recurring it was necessarily left in position. Notwithstanding the fact that repeated laryngoscopic and tracheal examinations were made from time to time, and various methods of treatment pursued during the following eight months, no foreign body was detected, although its presence within the air-tract was considered as probable by those in charge of the case. A second attempt at permanent removal of the tube, at the end of the above time, resulted, as before, in causing laryngeal spasm, followed, after reintroduction of the tube, by aphonia and some dyspnœa. In endeavoring to ascertain the cause of these new symptoms, the doctor undertook the careful examination through the tracheal wound, of the trachea, by means of a speculum, constructed on the principle of the *ear speculum of Brunton*, and with it discovered the missing and long-sought for foreign body, firmly fastened to the posterior tracheal wall, by the impaction of its sharp extremities, and enveloped by the swollen mucous membrane. Upon enlarging the original wound, it was easily extracted, and a rapid and complete cure followed its removal.

Its location in the trachea, behind and below the canula, it being hidden by the latter when in position, will explain the fact of its being overlooked during the many laryngoscopic examinations that were made.

The case of Schroetter, of Vienna, where there was impaction of a partial set of false teeth with their plate in the trachea, and the one reported by Lefferts, of this city, of a ring lodged in the larynx for four years, are alluded to in the article, by the writer, as being coincident and of interest in connection with his own. For the latter he claims that it is the first in which a foreign body has been seen and authenticated after a long period of impaction in the trachea, and the first in which a foreign body has been diagnosticated by means of a specular examination through a tracheal wound.

COPPER IN THE HUMAN ORGANISM.—In France, in cases of criminal poisoning, the medical expert is, as a rule, accompanied by a chemist to assist him; and in giving evidence before a court of justice, each is required to give an account of his work in his own especial department. Thus, while it is the duty of the chemist to search for the poison, the medical man looks for lesions in the body of the victim; notes are then compared, and if they do not tally with the results of works on the subject, the criminal is generally let off, not with the charge of manslaughter, but with "extenuating circumstances." It is in this way that MM. Bergeron and L'Hôte, the former a medical expert and the latter a chemist, were engaged in the affair of Moreau, who was lately executed for having poisoned his two wives at St. Denis. On that occasion it was discovered that copper was the substance employed, though, during the lifetime of the victims, poisoning by corrosive sublimate was diagnosed, as the symptoms bore more of the character of the latter than of poisoning by copper. The two experts, having recalled to mind the teachings of the celebrated Orfila, that mineral substances are generally found in the great organs of secretion, such as the liver and kidneys, at once examined these organs, and there detected copper; they, however, wished to ascertain whether the liver and kidneys, in their normal condition, contained this metal. In concert together, they then directed their investigations with the view of solving this question, and had an opportunity of carrying them out on fourteen corpses, which they were certain had no copper administered to them during the latter part of their lives. The result of their inquiry was lately submitted to the Academy of Sciences, and it may be summed up as follows:

In two of the bodies, aged respectively 17, copper was found, but the exact quantity could not be ascertained; in eleven bodies, whose ages ranged from 26 to 58, the maximum quantity found was one milligramme; in one individual, aged 78, the quantity was a little over one milligramme. MM. Bergeron and L'Hôte explain the presence of copper in the liver and kidneys by absorption from constant contact with this metal in various ways, such as the use of copper utensils in cooking and other purposes, the handling of copper coin, etc. From these results, these gentlemen have come to the following conclusions, which are important in a medico-legal point of view:

1. Copper is constantly present in the organism, but can be detected in appreciable quantity only in the liver and kidneys. 2. The quantity detected in the greatest number of cases does not amount to two milligrammes, = $\frac{3}{100}$ths of a grain.

A recent statement of M. Rabuteau is interesting in this connection.

Having examined the liver in a case reported by M. Bourneville, where the sulphate of copper had been given internally for epilepsy and where after death a considerable amount of copper was found in the liver, he found that a possible source of error in this case lay in the fact that copper is present in the alcohol which was used to preserve the specimens, and it is therefore necessary in such cases to preserve a specimen of the alcohol to decide whether or not it contains copper.

Varicose Vein treated by a new Operation.—Mr. Marshall, of London, mentions the case of a man who had suffered since he was sixteen years of age with a varicose condition of the left saphenous vein. For the relief of his trouble an operation was performed in November last, and it is described as follows: The patient was first directed to stand for half an hour with a carbolized cloth around the limb; chloroform was then administered, and the course of the tortuous vein was marked in ink. At each end of this mark the vein was ligatured in the following way: a pin was passed under the vein, a piece of bougie over it, and a figure-of-8 suture applied, bringing the two together so as to close the vein; two other similar ligatures were placed above the upper one at distances of two inches apart, and a fifth ligature was placed two inches below the lower one. The pins, bougie, and threads had all been previously carbolized. Esmarch's elastic bandage was then applied to the whole limb, with the effect of completely emptying the varicose vein, even in the intervals between the several pins. A straight incision through the skin, from the top to the bottom of the ink-mark, was then made, and, with a knife and director, the vein was slit up along the whole of the exposed portion. As the vein then formed a very large, irregular, folded mass at the bottom of the wound, a ligature was passed around it above and below, and it was then removed with forceps and scissors, two large veins which opened into it being cut during the operation. A strip of carbolized gauze was then placed in the wound, and the limb put up in the complete antiseptic dressing. The operation was done under the carbolized spray. No bleeding whatever occurred. Unfortunately, erysipelas and suppuration, requiring an incision, occurred about one month after the operation: otherwise the patient did well. He was discharged in January last, with the diseased vein satisfactorily obliterated above and below the part that had been removed.—*The Lancet*, January 23, 1875.

Chloralum.—This substance has lately been analyzed by a Prussian scientific commission. They report that it is not pure chloraluminium, but a mixed product resulting from the action of crude hydrochloric acid upon kaolin feebly heated. The fluid used as a disinfectant contains about 16 per cent. of chloraluminium, the efficient element. The chlorine set free by the decomposition of this compound combines with water to form hydrochloric acid, and the alumina is precipitated. The former deodorizes the ammonia compounds, and the latter carries down the organic substances dissolved or suspended in the foul water, the gelatinous substances excepted. It is, therefore, not a perfect disinfectant, and, in fact, does not equal the sulphate of iron.—*Berl. Klin. Woch.* March 1, 1875.

Successful Transplantation of Bone.—The want of success that has attended previous attempts at transplanting portions of bone renders this case of Prof. Nussbaum's particularly interesting. An officer, in 1870, received a gunshot wound which resulted in a false joint in the middle of the right ulna. The fractured ends were connected by a thin cicatricial cord. The functions of the limb were seriously impaired, notwithstanding the integrity of the radius. To relieve the deformity, the following operation was done, the age of the patient at the time being twenty-four: The false joint was laid bare, and the cartilaginous ends of the bones, which were pointed, together with the false ligament, were removed by strong scissors. The upper part of the ulna was then sawed half across about two inches above the end of the bone, and the upper piece, together with its periosteum, split off with a hammer and chisel. This was so managed, however, as to retain a small bridge of the periosteum for the nutrition of the bone. Finally, the detached piece was so placed in the vacant space that its upper surface was now external, its lower internal, and its outer superior. The fatty and indurated soft parts were divided so as to set up an inflammatory reaction, the bleeding checked by a stream of carbolized water, the wound closed by sutures, and a fenestrated plaster-of-Paris bandage applied. One small spiculum of necrosed bone subsequently came away. The patient made a perfect recovery, so that in the following year he had such full use of his arm that he was appointed to a regiment.—*Aerztl. Int.-Bl.*, Feb. 23, 1874.—*Allg. Wien. Med. Ztg.*

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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PRELIMINARY EDUCATION.

Every little while, we hear it urged from different quarters that one of the principal means of advancing medical education is to insist upon preliminary education. No one doubts the necessity of such a measure. All sorts of plans have been proposed to enforce it, but experience has shown that they sadly lacked the practical element which should insure their successful accomplishment. We are willing to say, at the very commencement of our remarks upon the subject, that we are not aware that we have any original ideas to advance. Our main desire is to discuss the matter from a general aspect, more for the purpose of ascertaining how we stand, what progress we have made during the last few years, and what are our prospects for the future. We all know what strenuous endeavors have been made by the American Medical Association to force the whole question of medical education upon the attention of the profession. There was, indeed, an earnestness of purpose on the part of all the gentlemen who interested themselves in this discussion not to be misinterpreted. No one can say that any pains were spared to reconcile all the conflicting interests of the different medical institutions, or that every feasible compromise was not made to agree upon some general plan of reform which should be agreeable to all. That all such efforts signally failed is a matter of history. The convention of medical teachers, formed for this very purpose, after an existence of three years, finally expired without accomplishing anything more than the adoption of some resolutions, which very few heeded, and which still fewer respected.

The general discussion of the subject was attended with some good result. The presentation of the facts of the case forced the conviction upon all that some radical reforms were necessary. How to accomplish them was, however, a problem which, with the exception of one or two Colleges, none cared to solve.

The subject of preliminary education was one of the principal reforms agitated; indeed, around this centred all the others. As far as resolutions are concerned everything has been done. The trouble has been that no College or Society has seemingly been influenced by them one particle. The most recent resolution, and the one now in full force regulating preliminary examinations, was passed by the American Medical Association within the past five years. It provides that no physician shall allow any student to enter his office without a certificate from the censors of the County Society that the said student has passed a satisfactory preliminary examination. This resolution has been adopted in substance by the Medical Society of this State, and, for all we know to the contrary, by many other similar organizations throughout the country. A most excellent regulation, but, as we have seen by practical experience it is a dead letter. We should like to inquire how many of the County Societies have complied with these commands. As far as we have been able to ascertain, there has not been more than three or four such Societies throughout the State which have not subjected themselves to discipline in this respect. Although the law has been in force in this State for three years, not a single member of a County Society has been brought to account. If it be possible that all the students who have entered the offices of the different medical men throughout the State, were above the requirements of any preliminary examination, we are ready to admit that the law answers its purpose. Even if it were possible for the censors to examine all the applicants, all their efforts would be nugatory unless the Colleges supported their decisions. That this is not so, we all know.

This fact carries with it a very important suggestion, which although it is not new, deserves consideration in this connection. The Colleges should take upon themselves the enforcement of the resolution. They are the only authorities which can agree upon a required standard, and the only ones who can practically exercise any power in the premises. But with the exception of one or two institutions, no effort whatever has been made in this direction. The rivalry of the different schools has almost everything to do with this. In fact, such is openly asserted by the schools themselves. All admit that a preliminary examination should be necessary, and yet they place themselves in the anomalous position before the profession of acting, for mere policy's sake, directly opposite to their convictions. They call themselves learned institutions, capable of educating men for a profession, and yet virtually say that any preparation for the study of that profession is unnecessary. There is no use, however, of repeating worn-out arguments to prove the absurdity of the position assumed by the colleges. The best that we can hope is, that the very falsity of this position will in the end work its own solution It must come to this if we ever expect to bring our students up to the requirements of a first-class medical education. By and by it will be as impossible for any medical student who is without a sufficient preliminary education to pursue his studies, as it now is for any one who should presume to take an academical course who is ignorant of the rules of the Latin and Greek grammars. When this time comes we may expect some change in the policy of our colleges, but until then all the efforts of the American Medical Association, the State Medical Societies, all the resolutions which are in force, or may be put in force, will amount to nothing.

A MATERNITY HOSPITAL FOR NEW YORK.

With the very laudable intention of preventing mortality among lying-in women the maternity wards of Bellevue were abolished and a transfer made to Blackwell's Island. At present the upper wards of Charity Hospital are used for lying-in purposes. But what we have gained in one particular we have lost in another. There is no doubt that the mortality may be lessened by the occupation of new wards and by the comparative immunity from those conditions of hospitalism which has made Bellevue somewhat famous, but Charity Hospital is altogether too inaccessible. The maternity wards of Charity may be models of convenience and comfort, but of what avail are they in these cases of emergency which are constantly occurring in a large city? It is true the Commissioners have provided a room in the dock house for the reception of cases requiring immediate attention, but this is so inadequate to the necessities of the occasion that it offers the strongest possible argument for some more elaborate arrangements. The boat makes but three trips daily, and lies at the dock for twelve hours continuously. During the night no trips are made. If a patient happens to fall in labor at odd times, she has either to be confined in the dock house or on board the steamboat, and practically speaking this is all the accommodation which the great City of New York can afford to women in labor who cannot wait to be transferred to Charity. We have no objection to a well-appointed maternity at Blackwell's Island, but as most of the patients come from this city, and a goodly majority of them are liable to fall suddenly in labor, we think some sort of a branch establishment here would hardly be out of place. We understand the Commissioners of Charity and Correction have appointed a committee to take the matter into consideration.

THE MEDICAL DEPARTMENT OF LIFE INSURANCE.

Various reasons have made it expedient for us to discontinue the publication of a separate department devoted to questions bearing upon life insurance, and the supplementary pages of this number contain, therefore, the last of the series. In future numbers we shall arrange the papers and items of this nature under the usual headings; and we trust that the change will not render The Record less valuable to those who are especially interested in this department of medicine.

Reviews and Notices of Books.

Lectures on Clinical Medicine. By A. Trousseau, late Professor of Clinical Medicine in the Faculty of Medicine, Paris; Physician to the Hôtel Dieu, etc., etc. Translated from the third revised and enlarged edition by Sir John Rose Cormack, M.D., F.R.S.E., Fellow of the Royal College of Physicians of Edinburgh, etc., and P. Victor Bazire, M.D., Assistant Physician to the National Hospital for the Paralyzed, etc., etc. Complete in two volumes. Philadelphia: Lindsay & Blakiston. 1873.

The London edition of this work was published in five volumes, the first one consisting of twenty-three selected lectures, with notes by Dr. Bazire. In the present edition these lectures are published in their regular order, and the notes by Dr. Bazire are omitted.

These volumes contain the sayings of one of the most profound and eloquent teachers of clinical medicine the world has ever seen, and they should be found in the library of every medical man who desires to study disease as it presents itself at the bedside of the patient. As one reads, he becomes absorbed in wonder at the purity of expression, the accuracy of description, the precision in noting symptoms, and the depth of knowledge evinced by this acute observer; and yet elegance of diction has not impaired veracity, nor brilliancy dazzled perspicuity. Issuing this masterly treatise in two volumes has brought it within the reach of all, and the medical practitioner can hardly afford to forego the pleasure and profit of consulting it while pursuing his daily avocation.

It is not within the scope of this note to give any analysis of the contents of this work, for the profession is already cognizant of its real worth. The present edition is well printed, and presents a creditable appearance.

Dental Pathology and Surgery. By S. James A. Salter, M.B., F.R.S., Member of the Royal College of Surgeons, and Examiner in Dental Surgery at the College; Dental Surgeon to Guy's Hospital. New York: Wm. Wood & Co. 1875.

This work is a compilation of the author's former essays and papers. As a general practitioner of surgery he recognized the neglected field of dental surgery, enters it, and we have in these pages his twenty-three years' experience. This is the stand-point from which all specialties (dentistry included) should start.

The volume contains twenty-eight chapters. The first and second chapters are devoted to the general anatomy of the teeth and their functions. Then follows abnormities of the dental organs, as to shape, number, size, and position. The chapter on new-formed dentine is quite interesting—should like to have seen it turned to more practical value, as by proper treatment of the dental pulp that has been reached by caries, a deposit of osteo-dentine would fill up the breach made by decay, and the pulp and tooth saved.

The chapters on congenital defects of structure and form, caries, mechanical injuries, we pass over. The author's terms tooth necrosis as applied to a tooth that has lost its dental pulp. The writer is inclined to believe that tooth necrosis is better applied to a tooth that has lost *all vitality*, both periosteal (peridental) and pulp. Otherwise it would be necessary to state whether it was death of the dental pulp or the peridental membrane, or both. Do not think that the author's local treatment of inflammation of dental pulp amounts to much as a general thing. The dental pulp receives its blood-supply from intermaxillary vessels, and general treatment is often necessary. Periodentitis may be relieved by local treatment. On death of the dental pulp it is not always necessary to remove the tooth, as the author advises, but extract the dead pulp before decomposition sets in, and fill the pulp chamber.

The chapter on odontomes is a valuable one, and well illustrated by interesting cases. Epulis, referring to position, and not to structure (επὶ, upon; ουλα, the gums). Why, then, give this name to one of a class of tumors on the gums? Name all tumors according to their pathological structure, and we get at the truth at once. We are compelled for want of space to pass over many interesting chapters, but must say a word on the chapter devoted to affections of the nervous system. It is excellent, and every general physician and surgeon would save themselves many blunders in diagnosis by following out the instructions there given,

The work is a good one, and we commend it to the profession, and know that they will be instructed by its perusal. The illustrations are mostly original, and are well executed.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 10th, 1875.

DR. F. DELAFIELD, President, in the Chair.

TUMOR OF ŒSOPHAGUS.

DR. SATTERTHWAITE, on behalf of the Microscopical Committee, presented the following report on a specimen of tumor of œsophagus, presented by Dr. E. Mason, at the meeting of Feb. 10th, 1875:

A growth in the œsophagus was referred to me for examination at that meeting. It consisted of a mass of fungous growths, occupying the interior of the œsophagus. The surface of these growths were uneven and lobular, and had a general elevatiou above the surface of the mucous membrane of about ¾ of an inch. They occupied a space about 4½ inches long.

On microscopic examination these growths appeared to arise from distinct centres, probably in the submucous tissue, from which point they branched outwards towards the interior of the tube, as could be seen by inspection with the naked eye.

Microscopically, the tumor was made up principally of cells having an epithelial nature and packed closely together, and forming branching cylinders, which latter were often seen on cross section, and were round. The appearance thus presented was often like that of an acinous gland. The cellular bodies were large, some measuring $\frac{1}{1000}$ of an inch in their greatest diameter, and some even more. They contained large oval or irregularly quadrangular nuclei. When these cells were isolated their general form and shape corresponded with those found in the ordinary varieties of cancer, such as are seen elsewhere. It is true that when seen in position the cells arranged at the periphery looked as if they were cylindrical; but when they were separated it was rare to find them of that character. The shape appears to depend in a great measure on the way in which they were crowded together. Towards the centre of the cylinders the cells were not compressed so tightly together in many cases, so that they were removed during the process of preparation, making the resemblance they bore to acinous glands more striking.

There were some points, but only a few, where there appeared to be collections of cells nested together, which assumed the coloring matter very sparingly. Sometimes, too, there were one or two cells among the other cells which did not color, perhaps owing to their being old and horny. There were, however, none of the large collections of cells, such as are seen in the epithelimata of the lip, and especially of the vulva. The epitheliod masses were surrounded by a variable amount of the ordinary form of fibrillated connective tissue. The appearance would indicate, therefore, in my opinion, that we have to do with a carcinoma, such as is generally found in other situations.

URETHRAL CALCULUS.

DR. JANEWAY exhibited a urethral calculus, one-half of an inch in length and a quarter of an inch in breadth, removed by operation from a boy, four years of age. His mother stated that during the year previous he had frequent crying spells, apparently occasioned by severe colicky pains. He then contracted the habit of pulling on the head of his penis, for which she had frequent occasion to punish him. His troubles culminated in an attack of retention of urine, which having lasted for two days, Dr. Janeway was called in. On separating the edges of the meatus urinarius the end of a calculus was seen. A uterine probe was passed into the passage, with a view of relieving the bladder somewhat, and of preparing him for the subsequent extraction of the stone. This latter operation necessitated the enlargement of the meatus, which was done by slitting it open. The calculus was made up of uric acid.

DISSECTING-ROOM SPECIMENS.

DR. JANEWAY also presented several specimens, removed from dissecting-room subjects, and were consequently without histories. The first of these consisted of an impacted fracture of the neck of the femur, at the point of junction with the neck and shaft of the bone, showing a new growth around the inter-trochanteric line. There was a shortening of a little less than an inch. The patient was a female, aged about sixty years.

The second specimen showed anchylosis of the knee-joint, with slight subluxation backwards. The third specimen showed bony anchylosis at the elbow. The last was a series of specimens removed from a woman, twenty-five years of age. They consisted of the bones of the extremities, showing a remarkable disposition to form exostotic spiculæ.

FRACTURE OF BASE OF SKULL, WITH TARDY SYMPTOMS.

DR. E. MASON exhibited a specimen of fracture of the base of the skull which was interesting in a clinical point of view. The patient was thirty years of age, a clerk by occupation, who was admitted into Bellevue Hospital Dec. 29th. He had no history, and presented the appearance of a person suffering from intoxication. He was comatose and had stridulous breathing. On examining his head no mark of any injury could be discovered. In the fossa of each ear there was a clot of blood, which was wiped out, and no further hemorrhage occurred. There was no ecchymosis of the eyelids or anywhere else. There was no paralysis, and the pupils were perfectly natural. He vomited the night he came into the hospital, and the vomited material had the odor of alcohol. On the third day afterwards he vomited a material blackish in color but of the same smell. At this time, his coma having disappeared a few hours after entrance, he complained of pain in his head, and particularly in the region of the ear. He was treated with bromide of potassium for seventy-two hours. His consciousness was of short duration, gradually fading away into semi-consciousness, and finally into coma again, which latter condition dated from the 3rd of January—the fifth day after admission. There was no marked change in his symptoms until January 5, with the exception that he was growing weaker. He then became violently delirious, requiring restraint. On the eighth day after the injury the left pupil was considerably more dilated than the right, although both responded to the light. This was the first time that any irregularity was noticed. At that time also he had a stronger grip in the left hand than in the right. His pulse was then 104 and his temperature 101°. Previous to that date his pulse was not above a hundred nor his respiration above twenty—at one time it was as low as sixteen.

On the evening of the eighth day his symptoms markedly improved, and he became quite intelligent. On the tenth day, for the first time, there was a watery discharge of cerebro-spinal fluid from both ears. Then a diagnosis of fracture of the base of the skull appeared to be well founded. On the twelfth day after the injury all the symptoms became much worse, and for the first time his urine and fæces passed unconsciously, and he gradually failed until the sixteenth day of the injury, when he died.

The autopsy was made twenty-four hours after death. The scalp presented no appearance of injury upon its surface. The temporal muscle of the right side was found infiltrated with dark coagulated blood. On turning down the scalp no sign of fracture of the skull was seen. The dura mater was firmly adherent. The other membranes of the brain were cloudy, while the sinuses were much congested. There was a spot of softening of the brain (1 inch by 2½ inches) on the inner surface of the middle lobe of the cerebrum.

On removing the brain an extensive fracture at its base was noticed. The line of fracture extended through both petrous portions of the temporal bone, and also through the ethmoid. The point of interest was, that a patient with such an extensive and serious fracture should have been so long without its usual symptoms, and that with such a fracture and separation of the ethmoid there should not have been a discharge of blood from the nostrils.

ENCEPHALOID DISEASE OF BONES OF HEAD.

Dr. Kipp, of Newark, presented a specimen of the above with the following history:

L. K., a cachectic-looking woman, 47 years of age, was suddenly taken with severe pain in left side of head about six months before her death. The physician whom she consulted at the time considered the case as one of neuralgia of the trifacial nerve, and administered subcutaneous injections of morphine, which failed, however, to give her more than temporary relief. Some months later she seeked advice from another physician, who found the left eye somewhat protruded and blind. Two months before her death she came under my care. The pain in the left eye and the left side of head was excruciating. Vertigo was present at all times. There was no nausea or vomiting. With the exception of partial loss of memory, her mental faculties appeared unimpaired. There was complete paralysis of upper lid of left eye. The protrusion of the eyeball measured between 2 and 3 lines. The lower portion of the ocular conjunctiva was œdematous, and protruded through the palpebral fissure. The eyeball, which was of normal size, was entirely immovable and devoid of sensation. The cornea was hazy in its centre; its periphery was opaque. The pupil was dilated and did not respond to light. With the ophthalmoscope only a dim, red reflex could be obtained. The details could not be made out. The eye was unable to distinguish a bright light from darkness. The tension of the globe was somewhat diminished. An examination of the left nostril revealed great swelling of the lining membrane, especially in the upper and posterior part. A distinct tumor could not be discovered in the nose. In the left temporal region there was an ill-defined swelling.

The patient, who had been hard of hearing on both sides for many years, was now totally deaf in the left ear. The external meatus was so much swollen that no examination of drum head could be made. The right side of jaw and head presented no abnormality.

Believing the case to be one of malignant disease of sphenoid bone, I sent the patient to the German Hospital, Newark, where she remained until she died. The pain in the head and eye was so excessive that even the largest doses of morphine failed to give her much relief. During the last four weeks of her life she was more or less delirious day and night. Her memory appeared entirely lost. Her appetite remained good to the very last. There was no perceptible increase in the protrusion of the eyeball during the time she was under my observation. The tumefaction of the lining membrane gradually increased to such a degree as to cause almost total occlusion of the nostril. The swelling in the temporal fossa was, at the time of death, about twice as large as when first seen. During the last month there was also observed swelling of the left parotid and of the post-auricular and submaxillary glands. The patient became comatose four days before her death. Two days previous to her decease, a profuse discharge of pus took place from both nostrils. The right eye was last examined with the ophthalmoscope about three weeks before her death, when it was found to be normal. With regard to the acuity of vision and hearing of the eye and ear of the right side, during the last month of her life, no positive information can be given, as her mental condition precluded a thorough examination.

The autopsy was made forty-eight hours after death. The membranes of the dura mater were dry, but much congested. In consequence of the adhesion of the dura mater, the brain was removed with difficulty. After the removal a tumor was found in the middle fossa, the dura mater being adherent to the anterior, middle, and posterior portion of the latter. In this membrane were several white, opaque points, which were likewise firmly connected with the brain substance. The origin of the tumor could not be made out. The growth involved the body of the sphenoid, as well as the large and small wings of the left side; also the temporal bone. The disease found its way through the larger wing of the sphenoid, and appeared under the temporal muscle. The walls of the orbit were almost totally destroyed, the orbit itself being filled with encephaloid material. The sheath and substance of the optic nerve were likewise filled with the material, as was also the retinal tunic. This deposit extended only as far as the sclerotic. The nasal cavity was filled by the infiltration. There was also destruction of the petrous portion of the temporal bone. The tumor also occupied the antrum of Highmore. The growth was cancerous in character, and was composed of cylinders of epithelium, separated by intercellular substance.

Dr. **Delafield** thought that the disease originated in all probability in the antrum.

On motion, the specimen was referred to the Microscopical Committee.

TRISMUS NASCENTIUM.

Dr. **Lewis Smith** exhibited a specimen of trismus nascentium. On the 27th of February he was asked to see a baby, at that time seven days old, and which had been sick since the day previous. The family lived in a damp and ill-ventilated wooden tenement in the suburbs. Dr. S. made only one visit, but there was no mistaking the nature of the disease. The mother stated that she had observed nothing unusual in the condition of the child up to the commencement of the disease, with the exception that it had diarrhœa since it was two days old. The number of evacuations varied from six to eight in the day. The disease had commenced with drowsiness, and when the child was aroused it was more than ordinarily fretful. At the time he saw her the tetanic spasms occurred every two or three minutes even when not disturbed. The cord had fallen off the day previously, the umbilicus looked somewhat inflamed, and pressure upon it with the finger produced the spasms. The same condition of things was induced by a similar pressure on other parts of the body. The pulse was 164, and temperature 100°, and the respiration 60 during the intervals of the spasms. During the paroxysms there was a great lividity of the surface, and the muscular rigidity was so great that the child was as rigid as a stick Death occurred before Dr. Smith had an opportunity to see the case again.

The autopsy was made twenty-four hours after death, assisted by Dr. Heitzmann. The body was somewhat yellow in color. The pupils were equal and somewhat enlarged. Abdomen distended. The umbilicus showed a sore ring, which was covered with a crust. The extremities were rigid. The thyroid gland was small, and the mucous membrane of larynx and trachea was moderately injected and contained mucus. The pleura was dotted with purple spots the size of a pin's head. The lungs were hyperæmic, and in many portions presented diffused hemorrhagic infarctions. A few lobules in the left lung were the seats of atalectasis. The thymus gland was unusually pale. The pericardium contained a few drops of hyaline serum. The heart was contracted. Beneath its posterior sulcus were hemorrhages, confluent in character. The cavities of the heart contained soft clots, as did also one of the umbilical arteries. Peritoneum moderately injected. Liver soft and hyperæmic — blood without pus in the ductus arantii (venous). The gall-bladder was large, and contained pale yellow bile. No hepatitis. Spleen soft, and reddish brown in color. Stomach moderately enlarged, with mucous surface pale. Intestines distended with gas, and the mucous membrane injected, containing mucous fluid matter. Kidneys — cortical substance pale, but medullary portion hyperæmic; infarctions of urates in pyramids. Bladder contracted and empty, and mucous membrane pale. Lymphatic glands of mesentery enlarged, and of a dark grayish-red color. The brain presented the usual appearance at that age, with the exception that there was intense passive congestion of the membranes.

Dr. **Sell** stated that he had prepared a specimen of fluid discharged from a mammary cyst; but as by an accident, since he came to the meeting, the vial containing the said fluid had capsized, and an opportunity of gaining some information from the Microscopical Committee was lost.

PYOPERINEPHRITIS.

Dr. **Janeway**, in the absence of Dr. Polk, presented the following history, with the accompanying specimen:

Jas. Fogarty, 32, S. Ireland, porter, admitted Dec. 26th, 1874. Family history unimportant. Habits intemperate. Had syphilis. About five years ago patient was troubled by his first symptoms; frequent desire to micturate (some ten or twelve times daily). Was treated for cystitis by injections of nitrate of silver, and after this became worse, and legs œdematous at intervals. Treated then for Bright's, and was relieved as regards symptoms. Afterwards became worse, and was admitted here.

On admission patient well nourished; legs œdematous; passes water more frequently and a larger quantity than normal; urine acid; sp. grav. 1.013; albumen. Ord. diuretics, causing urine ℥ 110 to be passed; œdema diminished.

Jan. 24. Passed ℥ 112. Jan. 25. Patient complains of lumbar pain for some days past, growing more severe; blister applied. Feb. 12. Patient complains of increased and throbbing pain of left kidney; and examination shows a fluctuating circumscribed tumor, about five inches diameter each way, and shown to contain pus by hypodermic; urine ℥ 102, loaded with albumen, acid, sp. grav. 1.014: opium gr. ij. given. Feb. 13. Incision two inches and a half long, four inches from spine, made through lumbar aponeurosis, and pus came out forcibly ℥ 36; finger could not feel bottom of cavity thus opened. Feb. 15. Patient did well, and improved afterwards, and passed ℥ 38 second after operation. P. 100, R. 14, T. 100½° A.M.; wound discharges freely; patient eats fairly and is comfortable. Feb. 17. Discharge of wound less; urine ℥ 50. Feb. 24. Urine ℥ 84, sp. grav. 1.011; P. 108, R. 18, T. 98¾°. March 5. Passed urine ℥ 72; P. 120, R. 18, T. 101° A.M. March 8. Passed urine ℥ 58, sp. gr. 1.013; P. 120, R. 18, T. 99° A.M. March 9. Patient has less appetite; had a chill, and is doing badly; P. 138, R. 24, T. 100° A.M. March 10. Patient died to-day.

Autopsy.—Right kidney weighs ℥ 18, fatty, waxy, and interstitial change; left kidney enlarged, surrounded by fatty tissue, the result of fatty degeneration of the cortical substance. Pelvis and calices enlarged and containing pus; sinuses communicating with cellular tissue surrounding the kidney, and a general matting together of the adjacent tissues; pus being found in the crus of the diaphragm and also in the substance of the dome of the muscle.

The cavity communicating with the wound in lumbar region was pretty free of pus. Empyema of left pleural cavity occurring secondarily. Ureter (left) entirely impervious and thickened, and much bound by tough adhesions, and no opening into bladder palpable. Bladder thickened; remains of an old stricture in membranous portion of urethra.

* * *

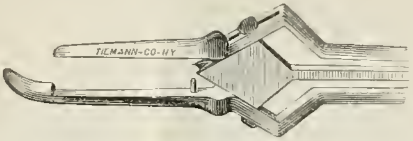
Dr. **Henry F. Walker** has been appointed to fill the vacancy in the surgical staff of Bellevue Hospital caused by the resignation of Dr. Ernst Krackowizer.

New Instruments.

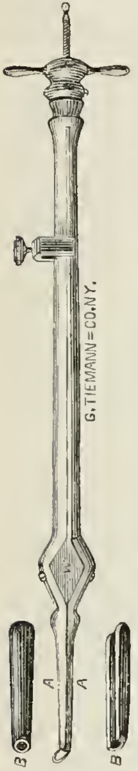
FLEXION STRAIGHTENER AND DILATOR.

By ALEXANDER S. HUNTER, M.D.,

NEW YORK.



This instrument—the mechanism of which will be readily understood by referring to the cuts—offers advantages when used either to overcome uterine flexions or to effect the dilatation of the uterine canal, which may be stated as follows:



A A, Fingers. *BB*, Gloves of hard rubber. *W*, Wedge which separates the fingers.

First.—Its peculiar point, *because of* its short curve, is compelled to traverse the *convex* instead of the *concave* wall of the flexion, and therefore, in the lesser flexions, it does not impinge against and become obstructed by the concavity of the flexed wall, as do the points of the other instruments thus far devised for this purpose. To overcome the more-pronounced flexions, this curve serves a like and even more useful purpose. In this latter class of cases the instrument may be used in the following manner.

Having placed the patient under the influence of an anæsthetic, draw down and secure the uterus with a tenaculum. Now pass the point of the instrument up to the obstruction, with its longer finger opposed to the concavity of the flexion, slightly separate its fingers, and after allowing them to so remain for a short time, bring them together; the point will now pass still farther on in the canal, and by patiently repeating this process the object sought may generally be attained.

An easier, more conservative, and therefore better way to accomplish the same end in this latter class of cases, is to first dilate the flexed canal without straightening it. To accomplish this, I use flexed tents of laminaria of *small* size, which have been soaked in an aqueous solution of carbolic acid, and which have been compelled to maintain while trying the required curve; one, two, or more of these may be introduced without difficulty, for there is less resistance to the introduction of a tent in sections than as a whole. Other sections may be added to those already inserted after they have become dilated; the patient being in the meantime in bed and under the influence of opium.

Again, the curved point of this instrument not only serves to facilitate its introduction in cases of flexions and cervical constrictions, but when inserted this same point opposes in the most satisfactory manner the concavity of the canal, and prevents the injury which might otherwise result to the organ when the fingers of the instrument are forcibly separated; further, while the presence of this projecting point within the uterus can, under no circumstances, prove objectionable, it may serve still another purpose in preventing dilatation too near the fundus.

Secondly.—The straight fingers of the instrument, together with their straight handles, render it capable of effecting dilatation in the *anterior posterior direction*. Does it not follow, therefore, that it is capable of straightening a flexion?

Thirdly.—As a dilator it is also easily introduced, from the fact that its fingers are but $\frac{5}{32}$ds of an inch in diameter, and also from the fact that its point follows and closely hugs the *convex*, and therefore does not impinge against and become obstructed by the *concave* wall of the canal. The fulcrum and lever speculum,* if the uterus be either high up, flexed, or anteverted, will also facilitate the introduction of this instrument.

Fourthly.—Its capacity, notwithstanding its slender fingers, to effect dilatation, is secured by the *close* proximity of the power to the resistance.

Fifthly.—Its elastic handles secure for it an elastic pressure with which to overcome flexions or cervical constrictions, or if it be desired to employ an unyielding force, this can be done by the use of the screw at the side of the handle. The same screw may be used to so change the direction of the fingers of the instrument that they will not only dilate the external and internal os *equally*, but either, more than the other, at pleasure; again, the elasticity of its handles enables us to estimate the force that is being exerted.

Finally.—The straight fingers of the instrument, together with their straight handles, enable us to effect dilatation in any direction, therefore the points of bearing can be *shifted* so that the prolonged pressure on any given point may be avoided, and after the dilatation of the canal has progressed sufficiently to admit the gloves, which are then to be added to the fingers of the instrument, the pressure will be still further distributed, as well as its capacity to effect dilatation increased. A second and larger pair of gloves are also furnished, by means of which the cervix may be dilated to the extent of an inch in diameter.

This instrument, and also the speculum above referred to, are made by Tiemann & Co., of this city, to whom I am grateful for their patience and courtesy, as well as for the perfect execution of my design.

Medical Items and News.

A British Dental Association.—The last number of the *Monthly Review of Dental Med. and Surg.* contains a proposition for the formation of a British Dental Association. It is proposed to assimilate its character and constitution to those of the British Medical Association, and to hold the meetings at the same time and place as those of the latter.

Professor Pajot, who has been prevented by over-fatigue from lecturing for the past two years, is to resume his functions in the Paris School of Medicine.

The London Medical School for Women.—It is said that eighteen young ladies have been studying medicine in Henrietta-street School of Medicine during the session now closing.

M. Henri Roger, the highly esteemed and well-known "children's doctor," who has for many years been attached to the Children's Hospital of Paris, has, by the inexorable law of age, been obliged to relinquish his office, he having completed his sixty-sixth year. He is succeeded by M. Blachez.

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* The length of the upper blade of this speculum has been reduced, while the upward curve of the open extremity of the under blade (described in the 214th No. of this Journal) has been increased, rendering it even more efficient than before in overcoming the utero-vaginal angle.

Successful Removal of Goitre.—Professor Lister lately operated successfully at the Edinburgh Royal Infirmary, in a case of goitre affecting both sides of the thyroid body. Before proceeding to remove the tumor, the operator ligated the superior and inferior thyroid arteries, which almost entirely prevented hemorrhage.

The "Missouri Clinical Record" has changed its title to the "*St. Louis Clinical Record.*"

Hospital Appointments.—The following appointments have been made by the Commissioners of Public Charities and Correction:—

Reception Hospital, Ninety-ninth street.—Clifford M. Steele, M.D., appointed senior assistant physician; Frank B. Bennett, M.D., appointed junior assistant physician, to fill vacancies.

Nursery Hospital—Peter John Popoff appointed assistant physician, to fill vacancy.

Park Reception Hospital.—Thomas H. Manley, M.D., appointed junior assistant physician.

John Hunter on Ovariotomy.—John Hunter is reported to have said: "I cannot see any reason why, when the disease can be ascertained in an early stage, we should not make an opening into the abdomen and extract the cyst. Why should not a woman suffer spaying as well as other animals do? The merely making an opening into the abdomen would never be followed by death in consequence of it."

American Medical Association.—The twenty-sixth annual session of the Association will be held in Louisville, Ky., on Tuesday, May 4, at 11 A.M.

Sections. *Practice of Med., Mat. Med., and Physiol.:* Drs. Austin Flint, Sr., New York, and J. K. Bartlett, Milwaukee. Special Committees appointed to report to this section, "On Meteorological Observations," Drs. J. M. Toner. D. C.; J. J. Woodward, U. S. A.; E. Lloyd Howard, Md. "On Clinical Observation," Drs. N. S. Davis, Ill.; H. A. Johnson, Ill.; J. B. Johnson, Mo.

Obstetrics and Diseases of Women and Children: Drs. W. H. Byford, Chicago, and S. E. Busey, Washington, D. C. Special Committee, M. A. Pallen, N. Y.; L. F Warner, Mass.; J. K. Bartlett, Wis. "On Unusual Fœtal Presentations," Dr. J. A. Octerloney, Ky. "On Retroversions of the Uterus in the first Five Months of Pregnancy," Dr. Heaton, Mich. "On the Connection of the Hepatic Circulation with Uterine Hyperæmias, Fluxions, Congestions, and Inflammations," Dr. L. F. Warner, Mass. "On the Relation of Menstruation during Lactation," Dr. S. C. Busey, D. C.

Surgery and Anatomy: Drs. E. M. Moore, Rochester, N. Y.; T. S. Latimer, Baltimore, Md. "On the Treatment of Fractures," Dr. Lewis A. Sayre, N. Y.

Med. Jurisprudence, Chemistry, and Psychology: Drs. Jerome Cochran, Mobile, Ala.; G. A. Moses, St. Louis, Mo.

State Medicine and Public Hygiene: Drs. H. J. Bowditch, Boston, Mass.; H. B. Baker, Lansing, Mich. "On Ventilation of Dwellings, School-houses, and other Public Buildings," Drs. R. C. Kedzie, Mich.; A. B. Stuart, Minn; R. J. O'Sullivan, N. Y. "On Form of Bill to Establish a National Department of Public Health at Washington," Drs. H. B. Baker, Mich.; H. A. Johnson, Ill.; J. M. Toner, D. C. "On what Legislative Action, if any, can be taken to enforce by Law an Examination of all Persons who enter upon the Practice of Medicine and Surgery, by a State Board of Medical Examiners," Drs. Foster Pratt, Mich.; S. G. Armor, N. Y.; D. W. Yandell, Ky.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent to examine them with care, and, with the advice of the Chairman of his section, to determine the time and order of their presentation, and give due notice of the same. . . ."—By-Laws, Art. II., Sect. 5.

The following Committees are expected to report:—"On Cultivation of the Cinchona Tree," Dr. L. J. Deal, Pa. "On some Diseases peculiar to Colorado," Dr. John Elsner, Col. "On American as compared with Foreign Winter Cures," Dr. H. R. Storer, Mass. "On Railroad Injuries," Dr. W. F. Peck, Iowa. "On Proper Legislation to Prevent the Spread of Syphilis," Dr. S. D. Gross, Pa. "On the Use of Pessaries," Dr. John Morris, Md. "On Cystic Degeneration of the Kidneys," Dr. J. A. Octerloney, Ky. "On the Diseases of Minnesota and the Northwest," Dr. D. W. Hand, Minn. "On Prize Essays," Dr. John Davis Jackson, Ky. "On Necrology," Dr. S. C. Chew, Md. "On Rank of Medical Department of the Army," Dr. J. M. Toner, D. C. "On International Medical Association," Dr. J. M. Toner, D C. "On Memorial on Dr. Henry Miller, deceased," Dr. S. D. Gross, Pa. "On Memorial on Dr. George Mendenhall, deceased," Dr. J. A. Murphy, Ohio.

The following amendments to the Plan of Organization are to be acted upon:

By Dr. H. B. Baker, Michigan:—

"The officers of the several sections shall be nominated by the section in and for which said officers are to serve."

By Dr. Adams Jewett, Ohio:—

"The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as shall have received the appointment by unanimous vote, and of all others who, being members in good standing of any State or local Medical Society entitled to representation in this body, shall, after being vouched for by at least three members, be elected to membership by a vote of at least three-fourths of the delegates in attendance, and shall continue such so long as they remain in good standing in the body of which they were members when elected to membership in this Association, and comply with the requirements of its by-laws."

The Philadelphia *Medical and Surgical Reporter* says: "The paper on Nitrate of Silver, before the New York Medical Society, referred to in the *Reporter*, February 27th, p. 169, should have been credited to Dr. Marion Sims, not Dr. Mary Jacobi." We are somewhat curious to know the source from which the *Reporter* gets this bit of information. We have always supposed that Dr. M. P. J. was quite able to write her own papers as well as read them, and we have yet to learn that Dr. Sims, in addition to his other accomplishments, is an expert in histology and microscopy; or that he is in the habit of writing papers for other people to read.

Like unto the foregoing is an announcement in the *Chicago Medical Times* of a paper read before the Medical Society of the County of New York, on "The Relation of the Medical Profession to the Delusions of Spiritualism, Animal Magnetism, Clairvoyance, Mind-Reading, etc.—How these should be Detected and Exposed. By Dr. H. B. Sands."

Manslaughter by Infection.—A woman named Elizabeth Marsden was recently committed for trial in the English courts for having, in her capacity as a midwife, carried the infection of puerperal fever to several patients, who died in consequence. She appears to have been cautioned by a surgeon against continuing in practice. *The British Medical Journal* of March 13th says, referring to the case of a Mrs. Ingram, whose trial for a similar offence took place a week before: "The precedent is a very stringent one, and, as we pointed out before, if manslaughter by infection became an offence readily recognized and habitually punished by criminal prosecution and conviction, it will undoubtedly behove all medical practitioners, as well as midwives, to move with very great caution; and, unless such prosecutions be regarded with some jealousy, and a sincere regard to all the related facts and consequences, the perils of professional practice will be very largely increased. The prosecution of midwives appears to take place amidst considerable applause; nor ought they to escape any penalty which attaches to ignorance or neglect. It is obvious, however, as we pointed out from the first, that the arbitrary principle involved does not concern midwives only. The editor of the *Edinburgh Medical Journal*, commenting on the case of Mrs. Ingram, illustrates his views thus: 'Down comes the policeman to Sir William Jenner, to tell him to see no more cases of croup for two months, at his peril, as the Coroner hears he has been attending some fatal cases; to Sir William Gull, to give up practice for two months, as he hears he has been attending some fatal cases of scarlatina; to Dr. Farre, to give up practice, because he has been in repeated consultation in a fatal puerperal case; to Sir James Paget, to give up operating, as he is in attendance on a case of erysipelas, and so on.' In these days, when the extent to which diseases are influenced by septic germs and hospital influence is much debated, the vista opened by such prosecutions leads a long way, and is lost in a rather obscure shade."

STATISTICS OF BIRTHS IN MASSACHUSETTS.—At a recent meeting of the Obstetrical Society of Boston, Dr. Draper, who said that he had been recently looking up the statistics of births in Massachusetts, gave the following as among the results of his investigations. Most children have been born in the latter half of the year, and the majority of these in the last quarter. In the last twenty-five years, the period included in the examination, the proportion of males to females born has been as 106 to 105. The births of children of American parentage have decreased from 63.02 per cent. in 1849 to 39.98 per cent. in 1873; the births of children of foreign parentage have increased from 35.96 per cent. in 1849 to 48.24 per cent. in 1873; while those of mixed parentage, one parent being foreign, the other American, have increased during the same period from 1.02 per cent. to 11.78 per cent. Still-born males have been greatly in excess of the females. Of plural births the proportion is constant: 1 to 100. In 1873 there were six cases of triplets. In a discussion which followed, Dr. Chadwick asked if the customs with regard to marriages had anything to do with the time of births. In Vienna the effect of the carnival was very marked nine months later. Dr. Draper said the greatest number of marriages in Massachusetts is at Thanksgiving time, in November, while the smallest number is in March.

THE BIRTHS AND DEATHS IN DUBLIN.—During the year 1874 there were registered in the Dublin registration district, 8,903 births, equal to a ratio of 28 per 1,000 of the population. The weekly average was 171. The deaths registered during the year were 8,190; equal to 26 in every 1,000 of the population, which was also the average death-rate for the preceding ten years. The deaths from zymotic diseases exceeded the average of the preceding ten years by sixty-three, the number being 1,916, or one in every 43 of the deaths, and 61 in every 10,000 persons living. Scarlet fever, which had been epidemic for the last fifteen months, caused 834, on ten per cent. of the total deaths. Deaths due to fever were 352 in number; to small-pox, 2; whooping-cough, 40; measles, 97; diarrhœa, 203; diphtheria, 44; croup, 113; quinsy, 19; and erysipelas, 49. Bronchitis caused 1,000 deaths; pneumonia, 206; heart-disease, 376, and phthisis, 862.

SOME "ANTI-VACCINATION" DELEGATES recently waited upon a candidate for the House of Commons and asked him whether, if they voted for him, he would support the repeal of the Compulsory Vaccination Act. His answer was: "If you will only vote for me to-morrow, you may all get the small-pox next day if you like," which answer was not considered perfectly satisfactory.

THE INTERNATIONAL MEDICAL CONGRESS will meet at Philadelphia in September, 1876. The profession in Philadelphia have already appointed a Commission, of which Dr. Samuel D. Gross is President, and Drs. Atkinson, Dunglison, and Brinton are secretaries. Invitations will be sent to the principal medical men of the world, and delegates will be received from all orthodox medical societies, credentials being required. The proceedings will consist of papers and discourses upon medicine and medical progress in this country; upon surgery, obstetrics, chemistry, hygiene, medical education, etc. No vote will be taken, nor will discussion be encouraged during the session.

IT is said Professor Heschl will probably succeed Rokitansky at the University of Vienna.

CHLORATE OF POTASH IN THREATENED ABORTION.—Dr. Bruce, in a communication to the Obstetric Society of Edinburgh, has called attention to the value of this remedy, and he supports his statements by the authority of Inglès, Cairns, Moir, and Keiller. Piccinili is also said to have known of several cases in which the chlorate has been successfully used with women who ordinarily failed to reach their full term.—*Gaz. Méd. de Paris*, 12. 1875.

DR. MEREDITH CLYMER, President of the N. Y. Society of Neurology and Electrology, wishes to make some corrections to our report of that Society published in our number for April 10. He writes:—"I am made to say in the report you have published, that 'fully one-third of the cases of nervous diseases I am called on to treat were dependent on some form of genital irritation, and that the other two-thirds were due to blood-poisoning.' What I said was, that of the *functional* disorders of the nervous system which came under my notice, one-third perhaps were due to irritation of the genital organs in the two sexes; the other two-thirds to some form of blood-poisoning. A very essential distinction."—[We make the correction with pleasure.—ED.]

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WEEKLY BULLETIN OF MEETINGS OF SOCIETIES.

Monday, April 19.—Obstetrical Section of the Academy of Medicine; Medico-Chirurgical Society; New York Society of Neurology and Electrology; Pathological Society of Brooklyn.

Tuesday, April 20.—New York Obstetrical Society; New York Dermatological Society; North-western Medical and Surgical Society; Medical Society of the County of Kings; Newark Medical Association.

Medical Department of Life Insurance.

THE RELATION OF SYPHILIS TO HEALTH AND TO LIFE.

By R. W. TAYLOR, M.D.,

PHYSICIAN TO CHARITY HOSPITAL, SURGEON TO THE NEW YORK DISPENSARY, DEPARTMENT OF VENEREAL AND SKIN DISEASES.

(Continued from the March 13th Number of THE RECORD.)

THE heart and its appendages may also be affected by syphilis in such a manner as to compromise life. The chief lesions are:—

Infiltrations into the muscular structure of the heart.

Infiltrations into the pericardium (Wilks and Virchow).

Infiltrations beneath the endocardium, and upon the valves and their appendages (perhaps).

Degeneration of the vessels, arising from the heart, owing to previous inflammation, or perhaps infiltration.

Recent observations by Bälz (*Archiv der Heilkunde*, Feb., 1875) go far to establish the fact that syphilis may induce a hemorrhagic condition, which may eventuate in death. This observer reports two fatal cases, and one in which recovery took place. The question as to their cause was, whether the process was wholly due to degeneration of the capillaries, or whether there was an altered condition of the blood. The latter supposition is the one more forcibly borne out by the details of the cases. We may then in a qualified manner admit that in rare cases a hemorrhagic condition is produced by syphilis, which may prove fatal.

Severe ulcerating lesions and degeneration of syphilitic infiltrations somewhat infrequently lead to death. Thus in some cases of extensive chronic ulceration of the skin, the patients have gradually faded and died from the concomitant exhaustion. Then again, degenerations of infiltrations into the bones have produced a similar adynamic state, which finally was ended by death. In the event of degeneration of osseous syphilitic lesions about the cranium, death may be caused by the implication of the cerebral meninges. Still it is a fact that has twice struck me as being singular, that very extensive and chronic necrosis of the cranial bones (usually the frontal), even with destruction of the dura mater, may continue for years without compromising life. I had under observation, some years ago, a case in which destructive action began ten years previous in the frontal bone, resulting in a loss of the entire thickness of the bone for an area of two inches, with a corresponding amount of the dura mater, and yet life was not compromised; and it is probable that the woman might have lived for years longer had not an intercurrent double pneumonia carried her off.

There is a cachexia induced by syphilis which is not well brought out in the books, and it is of much interest. I refer to that breaking up of the constitution which occurs late in the history of syphilis. Its history, in a general way, may be sketched as follows: A man passes through his secondary period without any noticeable severity of his disease; he is not as careful as he should be in following out proper treatment. Later on tertiary lesions of a character perhaps troublesome, but not alarming, cause him to seek advice. He is again partially treated. At this time, or earlier, he begins to experience a general condition of ill-health. He is unable usually to fix upon any particular organ as being involved, and his symptoms are not indicative of any particular disease, or referable to any one organ. He feels weak, generally has errors of assimilation, which he calls biliousness, or perhaps thinks that his stomach, liver, or kidneys are out of order. A peculiar pallor gradually spreads over the face, and soon it is evident that the patient has some organic visceral disease. This condition may continue and end in death without any one organ more than another seeming to be involved, or the end may result from cirrhosis, or kidney disease, or it may be accelerated by acute intercurrent disease. In the latter condition, the general character of the acute complicating disease is greatly modified—much more so than it would be in a person previously healthy; and the patient succumbs, sometimes unexpectedly to the attendant, usually without the acute disease having assumed of itself such a formidable character, as would seem necessary to involve life. At the autopsy of such a person, though perhaps there may be found considerable fatty development, there is usually a flabbiness of the tissues and in most cases a greater or less state of amyloid degeneration of the viscera. This amyloid degeneration, resulting from chronic generally improperly treated syphilis, may be of a mild character and may involve several viscera, or again it may be concentrated principally in one organ, and the interference with its function may be the cause of the death of the patient. It is well, then, to bear in mind this condition of cachexia or of gradual exhaustion as occurring late in syphilis, as it is one of considerable importance. I am thus particular in calling attention to it, not only by reason of its bearing upon our present inquiry, but also to establish it fully as a morbid entity in direct contradistinction to the cachexia or exhaustion which occurs in secondary syphilis. Between these two states there are great differences, both as to cause, to the question of prognosis, and also as to their susceptibility of cure by treatment. In this connection it is well to allude to the general condition of ill-health which sometimes accompanies affections of the nervous centres due to syphilis. Thus in such persons, having, for instance, optic neuritis, we often observe a coexistent exhausted state and that they are ill able to withstand acute disease.

These are in general the affections or conditions which may be induced by syphilis and which in various ways may cause death with greater or less rapidity. The effect of syphilis varies materially with the age, condition and habits of the person affected, and is more or less profoundly modified by the constitutional state. It may conduce to a clearer line of study to consider here in advance the influence of the disease upon the extreme ages. Syphilis in the young child—I mean a subject from eight to eighteen years—is not, according to my observation and study, necessarily a severe or fatal disease, nor does its existence necessarily portend to the individual a blighted future. On the contrary, I think that cases which I have observed warrant me in stating that the young generally pass through their syphilis without any very serious damage, and that in them there is a marked tendency for the disease to run out early, in other words to be cured. I refer in this connection to children who possess a healthy organism. When they are properly treated their lesions are slight and of short duration, and the disease ends virtually at the secondary period without the supervention of tertiary manifestations. It may be even in such subjects that the early manifestations are very severe, and yet their bearers rally with a marvellous resilience, and finally as it were grow out of the disease. It has occurred to me that perhaps at this age there is less reaction to the virus of syphilis than later on, and that its products do not to o great an extent increase and multiply, consequently that the disease soon loses its hold. I am here alluding to cases of acquired syphilis in which there was primarily a healthy organism. This subject has as yet not been treated of in literature, hence I am forced to base my statements upon cases which I have personally observed. There are circumstances surrounding the youthful subject, taking of course one from a good class of the community, which are in favor of a mild course of syphilis. There is the absence of any abnormal condition of the system from habits, exposure, etc., etc., and besides this they enjoy hygienic influences which are impossible to the subject of syphilis in later years who has to undergo more or less the confinement of business with the various other cares and vicissitudes of life. When I first reflected upon this subject I was of the opinion that as the organism of the child is immature it would be profoundly affected by syphilis, yet actual examination of cases shows me that there is in such subjects a certain immunity to the action of syphilis. If infected early and then properly treated, it is very probable that such subjects throw off the influence of the disease, and that at maturity they are not very much damaged. I scarcely think that quite such a favorable statement can be ventured upon persons who become syphilitic just about or prior to puberty. The peculiar morphological changes of the system which take place at this period in the economy, seem, judging from the course of syphilis in such, to render them susceptible to a severe attack. At this period—and I think that other observers will coincide with me—there is not that resilience of the system, such as we observe in earlier years. In subjects of this age the disease seems to develop itself to a marked degree, the cell proliferations incident to it are very active and copious; in fact, the lesions are extensive and severe, and there is often noticed an early evolution of those manifestations which are usually confined to the late or tertiary period. As to sex, I think it will be found that women particularly at this time suffer more profoundly than men do. Again, at this epoch there is often to be observed a decided tendency in the syphilitic disease to modify in a menacing manner any morbid predisposition inherited or acquired which the individual may possess. This same modification may be observed in the syphilis of younger persons, but I think that it is most marked at the age of puberty. Space will not permit me to enter into a consideration of the probable causes of this susceptibility, and I shall briefly explain it by saying that as at this time the whole economy is in a very active and in a measure transitional state, and as it is probable that the tendency to cell proliferation generally is then greater, the system is more powerfully affected by the syphilitic action which, as we have already shown, consists in perversions of nutrition, in hyperæmia and hyperplasia. Grave as the syphilitic condition may be at this period it need not necessarily lead to a fatal issue. Indeed, we have, at this time especially, urgent necessity for well-regulated careful medication. If subjects of syphilis at this age are carefully treated in the broad sense of hygiene and therapeutics, there need be no fear as to the result. Generally such subjects, though they may pass through a severe ordeal, get well, yet there is at this time, perhaps, more than at any other, need for watchful care on the part of both patient and physician. I shall further on dwell at some length upon the necessity and value of treatment, and I may here say, that in treating patients of both sexes, perhaps I may lay more stress as affecting the female; it is at this time absolutely necessary that a long-continued mercurial and hygienic treatment should be followed. At this period especially, intercurrent diseases are apt to be severe or to leave serious sequelæ or to prove fatal.

In the aged and in those prematurely old syphilis is, in general, to be very much feared. While it may run a mild course in persons between the ages of from thirty to nearly fifty, after the latter period is passed, with some exceptions, its evolution is attended with circumstances of great gravity. There is then superadded to the gradual decay of the system a disease which may prove fatal quickly by inducing inflammations, or by hastening the course of structural organic lesions which otherwise would but slowly develop. At this period especially syphilis may enfeeble the power of resistance of the system, and it frequently stamps upon acute intercurrent disease a malignity not observed in an uncomplicated state. Although these are the general facts there are numerous exceptions, and we see instances in which the aged, becoming syphilitic, seem not to be in a severe manner affected by their disease; but on the contrary they, so to speak, throw it off. Practically applied, our doubts and fears as to the course of syphilis at this time of life should teach us to be very cautious in our prognosis, and to be apprehensive of a severe ordeal. In entering into contact with such parties too much care cannot be exercised, for the reason that we cannot feel certain, even if they pass through the first few years of their disease without much suffering and are then in seemingly perfect health, that they will not be overtaken later on by some affection, more or less remotely dependent upon syphilis, which will cause death. Space prevents the further elaboration of this interesting and important point, therefore I content myself with the somewhat cursory but practical treatment which I have accorded to it, for while it is essential that the critical state of their constitution should be fully taken into consideration, it is necessary to weigh well the general facts presented by the individual instance. Thus a previous unbroken state of health, the absence of any organic disease, the appearance of more than average strength, as shown by fulness of development and firmness of tissue, the non-indulgence in debilitating habits, are conditions which argue in favor of the power in the system of the patient of throwing off the disease.

Before considering the main issue involved in this inquiry, and in order to avoid confusion subsequently, I shall have to consider the influence of inherited syphilis upon life. Now it is well known that owing to various obvious causes inherited syphilis varies very greatly in intensity and in severity of course. The state of the child bears a relation to that of the parents both as to the general condition of the system, and as to the activity of the syphilitic disease. Early and active syphilis in a mother generally induces a severe syphilis in her child. The inherited disease, then, may be such as to kill outright, to severely compromise the existence, or it may be so mild and ephemeral that no malign effect is produced. The practical question involved in this inquiry is, what is the condition of the system and health in maturer life of those who were in infancy victims of hereditary syphilis. The prevailing opinion is that the constitution of such subjects is so profoundly altered that they are in reality incarnations of disease. My observation and experience lead me to take exception to this view. On the contrary, I think that clinical observation will show that infantile syphilis may be recovered from, that the diathesis may be exterminated, and that by a proper course the constitution of the person may be so profoundly modified by careful treatment, medical and hygienic, that no traces of syphilis thereafter will be observed. Further, I think that many such persons will pass through life, even through severe adynamic disease, without their previous serious condition in any way modifying or compromising their existence. It is true, that when born such subjects are, so to speak, saturated with syphilis, still the disease is now so much under control, and our views are to-day so enlightened as to the manner of treating it, as well as our medicines are so powerful in modifying it, that I think that I state but the truth when I say that even the inherited syphilitic diathesis may be cured. If inherited syphilis is to prove fatal it usually does so early in life; in fact, the ordeal induced by the disease is confined to early periods, and if at this time proper treatment is instituted it may be so successful that at maturity such a person would possess a healthy organism. It is certainly true, that victims of hereditary syphilis die in great numbers, still the issue occurs early, and the disease does not in the vast majority of cases leave any sequelæ, or any general condition which in after-life may tend to death. It is astonishing, and I but repeat the experience of every one who has studied this question, what severe forms of syphilis may be observed in the child, and yet under treatment recovery may take place, and later, such children may present no recognizable deviation from health. It certainly must be admitted that the nutrition of some children is so profoundly lowered by inherited syphilis, that they in childhood are miserably weak and sickly. Yet recovery, sometimes seemingly perfect, occurs under these circumstances and the morbid impress is finally thrown off. I am inclined to account for these auspicious circumstances by the facts that young organisms generally are prone to throw off disease, or rather not to offer in their tissues a very favorable soil to the development of syphilitic inflammations and infiltrations, and also that treatment is by them so well borne and productive of such gratifying results. In this connection, an important question is suggested, and one pertinent to our present line of inquiry. It is this: Can hereditary syphilis lay the foundation of a future decay of the system, which manifests itself late in life? In other words, after a hereditarily syphilitic subject has passed through youth and puberty without having suffered from any syphilitic lesion, is he or she liable, by reason of her inherited disease, to develop after maturity a condition of ill-health which might cause death? I am inclined to answer this generally in the negative. There are exceptional cases in which such subjects become broken down about the age of maturity, or during puberty, presenting in some cases, and not in others, syphilitic manifestations. Such subjects are sometimes seen, but compared with the frequency of hereditary syphilitics, I think they may be stated to be very rare indeed. I am disposed to think that the lurking tendency of inherited syphilis is not so long delayed as to the eighteenth or twentieth year, but that under proper circumstances it comes to an end and leaves the organism free. To practically apply this point, should an examiner refuse an applicant of twenty-one years or over, because he or she in infancy inherited syphilis? In general I think that he should not. If such a subject has been healthy during childhood, is then healthy, and possess no visceral lesions, I think that he or she might be considered a fair average risk, and it seems to me that a refusal to enter into relations with him or her would be an act of injustice. It would be well to look rather minutely into the general condition of such a person, yet I think that if he or she had passed to man's estate without having recently shown any serious deviation from health, there would be no good grounds for refusal.

We are now prepared to consider the condition of a man who is syphilitic, who prior to infection possessed a sound frame, and who might be called robust and healthy. It is very difficult to establish with accuracy the standard of health as it varies within considerable limits, so I shall here discuss the question as to the subsequent effect upon health, by assuming that we are treating of the individuals as we find them generally in the upper and middle classes. Many facts enable us now to say positively that syphilis is curable, the most convincing being that of the occurrence of syphilitic infection a second time; therefore, we are now able to speak in a comforting and assuring manner to our patients, and to dispel from their minds those fearful forebodings and gloomy clouds which in many cases have blighted their future. Yet, though the disease is curable, it requires an effort on the part of the patient to arrive at that happy state. We know that in some exceptional cases syphilis, even untreated, has not passed beyond a mild and short second stage, yet we must not assume this course as being the usual one, but as a great exception. We have already seen that syphilis manifests itself in its essence, so to speak, by congestions and by proliferations of tissue, abnormal and normal. Now in the economy of various persons the susceptibility to undergo these morbid changes varies in very different degrees. Thus in some cases we see, after the disappearance of the infecting or initial lesion, a slight tendency to morbid hyperæmia, with a still slighter tendency to abnormal cell proliferation, whereas in others these conditions are greatly intensified, constituting a severe course of the disease. I had this fact so clearly shown to my mind that I think I may with benefit briefly quote the cases as examples. A man of robust build contracted syphilis, five years ago, which, commencing with a lesion upon the penis in the form of an intense indurated nodule of great size, was manifested by two rather large papules, one upon the forehead and the other upon the abdomen, with a very slight and ephemeral roseola, and a similar hyperæmia of the pharynx. Under treatment these rapidly disappeared, and this man has never since experienced the slightest sickness, nor has he presented any other syphilitic manifestation. I have seen other similar cases. But as a contrast to this picture let us look at his wife. She was a woman of slight build, and of delicate fibre, who, though she never was strong and robust, generally enjoyed good health, never had any pulmonary weakness, nor had her family. She became syphilitic and had a papular eruption during the summer months. In the winter she had, owing to catching cold, a bronchial catarrh, which became very severe, and though she was treated actively and nourished largely upon nutritious food and alcoholics, she did not rally until the spring. At this time rough inspiration over both lungs generally showed that there was interstitial proliferation of connective tissue. During the next summer she was cared for in the most painstaking way, was treated medically and supported by nutritious diet, with alcoholics, and was surrounded by good hygienic conditions, yet she did not fully regain her health. In winter she was early confined to bed with a recurrence of her pulmonary trouble, and she died as a result of that and of exhaustion. After the evolution of the first cutaneous rash she did not present any visible syphilitic lesion except that all of the ganglia were markedly enlarged. I may here say incidentally that I have quite frequently observed that in such cases, or in those in which visceral lesions occur early, the syphilitic disease does not usually show itself by visible manifestations, in other words that there is a marked absence in such cases of lesions of the skin. I have not seen this fact mentioned by any author. Now these two cases show the extreme limits of syphilitic action and their import is very great. The organism or the tissues of the husband seemed unsusceptible to the proliferation of syphilitic new growths, hence the morbid tendency soon died out. He perhaps might again become syphilitic quite early. In the wife, on the contrary, there was a tendency to reaction, and we find that syphilis produced new tissue in organs necessary to life. In this case it is probable that the lesion was not largely if at all a genesis of gummy granulation tissue, but on the contrary there was an hyperplasia of the lung tissue. Though the tendency to become more or less profoundly affected by syphilis resides in each individual, yet are we able to so modify it that we can assure our patients of a cure, and here is the cardinal point of our inquiry at this stage. In the light of our present knowledge we know that we have two remedies, which, given singly or combined, are capable of curing syphilis. We know now that the malignancy of the disease which was formerly observed has gradually died out, and that of itself it is not as formidable as it was; still, if we read even the category of affections which syphilis may cause, and which may result in death, which I have given, it will be seen that it is no trifling state, but on the contrary one which requires our earnest care and attention. No other state is attended with so many manifestations, nor is death induced under such multitudinous conditions by any other disease. Therefore, though a now comparatively mild affection, it is certainly one not to be slighted or regarded as insignificant. A man presenting himself with syphilis is, as I have a little before said, a medical problem. He has to run a gauntlet of great severity, and his future is certainly much beset with shoals and quicksands. In practice, the future of such persons is to me always a subject of careful study, and by observing the evolution of the disease closely I have arrived at a process of thought, as undoubtedly many others have also, by which I can in a measure pronounce a prognosis. I am inclined to take exception to the dicta as given by many as to the prognosis in syphilis. Thus we are told that a very large, very much indurated initial lesion may be and generally is followed by a severe attack of syphilis. In some cases this certainly is true, but in very many it is not. The case above quoted is an example to the contrary. Again, it is thought that severe ulceration of the initial chancre portends a serious syphilis. In a limited degree this may be true, but as a rule it cannot be relied upon in the least degree. I have seen the most formidable ulcerating, even phagedenic chancres followed by very mild syphilis; others have undoubtedly done the same. It is urged that an early and copious evolution of secondary manifestations generally indicates a grave future state. How often is this true and how much oftener is it false? How many cases do we see in which the secondary explosion, to use a French term, is of the most alarming character, which are subsequently mild, and which never develop late lesions at all. Yet again, the early evolution of lesions of a pustular character is considered by some as of serious omen, and if such lesions show a tendency to ulceration, particularly if it is severe, the climax is thought to be reached, and it is considered absolutely certain that there will be a terrible, perhaps fatal, course of the syphilis. Still clinical observation strips this assertion of its terrors, and shows us that the lugubrious picture is based upon exceptional occurrences. Finally, as a prognostic sign of bad import, the early evolution of tertiary lesions, particularly if severely ulcerative and very extensive, is by many regarded with great solicitude. Under these circumstances there is need of some hesitation; yet I think I can add this very comforting assurance, that if these lesions are tegumentary they need not be considered as of very great import as to shortening life, though they may be very annoying by reason of the trouble that they give, and the destruction which they entail. As I have said, luckily for the human race, syphilis in general, nay, in by far the greater number of cases, expends itself upon the skin and its appendages, and mucous membranes, and leaves organs essential to life free, hence it may be of great severity and of long persistence, and yet its victim lives. Again, I think I may say, almost as a rule, that where syphilis shows itself in a very malignant manner in the skin, the vital organs happily enjoy an immunity, consequently death does not ensue if we can, under such circumstances, prevent the exhaustion which accompanies this state. I have now taken from you the few points which were considered as being of import in the matter of prognosis in syphilis; you will now justly say, if we have not these, how are we going to form an adequate estimate of the future of a syphilitic? I can, I think, put this matter to you in a very short and practical form, Mr. Editor, and a form which is not liable to the numerous qualifications which attend the other prognostic points. *Given a case of syphilis, in a previously healthy person, even of considerable severity in its first and second stages, if it is properly treated throughout the first two years, or perhaps two years and a half or three years, by an active mercurial treatment at first, followed either by iodide of potassium alone, or in combination afterwards, it can almost positively be said that the chances are ninety or ninety-five in a hundred that the future of that man will be as free from disease as he would be if not syphilitic.* This is strongly put, but not too strong; the assertion as here given is warranted by clinical observation, and is supported by the evidence of high authorities. It must be understood that, during the first three years at the utmost, generally I think two years, we will say, the patient is to, from time to time, undergo treatment, to be continually watched, to be guarded against intercurrent disease, and to be placed in good hygienic surroundings. The treatment, on the part of the physician, should be of the most careful and watchful character, should be adapted to the case, increased or diminished, as necessary, should be supplemented with tonics, and hematics, and blood-making food. He should enjoin upon his patient the utmost obedience as to mode of life and to taking of medicine. The truth is that syphilitics should place themselves under the care of a physician during the first two or three years of their disease continually, and they should be made to undergo a succession of treatments. They need not take medicine all of this time; there are, of course, intervals in which medicine or rather mercurials should be stopped, and in which, perhaps, tonics should be given, so that the patient really would not be treated for more than a year or fourteen months, at least he would only take medicine during this period. It is fortunate that the popular prejudice against mercury is gradually dying out, and that we have less and less resistance from patients as to its use, for it is really upon this that their future health and happiness depend; no other medicine will replace it in early stages, and if it is not a specific it certainly is when carefully and properly administered an almost perfect cure.

It is a sign of great progress that our knowledge of the use of this precious drug is becoming so precise, and that we can accomplish so much with it, and I think we can truly and justly say that, under ordinary circumstances, it will rid syphilis of its dangers and terrors. It is gratifying to think that the really learned men in syphilology prize this remedy so highly, and report such results from its use. When we hear the ill-natured, illogical, and often abusively coarse arguments of the few against it, we take pleasure in thinking that their numbers grow less yearly, and that their position in science does not warrant their vehement and positive declarations. Again, as an adjuvant, we have that inestimable remedy, the iodide of potassium, which towards the latter part of the course of treatment, either alone or in combination with mercury, finishes the cure already begun. The practical application of these facts to your ends, Mr. Editor, is this:

During the first two or three years of the existence of syphilis in a patient there are really no absolute signs by which you may assure yourself that he will not succumb to some manifestation of the disease. If, however, he, during that whole period, is actively and properly treated by a skilful physician, even if his disease is severe, if at the end of that time he has not within six months or a year shown any syphilitic lesion and then appears to be in good health, if the ganglia of the body have, as they generally do under this treatment, subsided to their normal or nearly to their normal size, I think you can take such a man as a very fair risk. The key-note to the whole matter is the treatment—I would say the prolonged treatment—and it is my firm conviction, based on very careful and I hope I may say without arrogance quite extended observation, for syphilitic patients should be watched with much care and solicitude, that if they would place themselves implicitly in the care of their physician during those critical two or three years (providing of course that he is not an antimercurialist and that he is of a regular school of medicine) and would follow out sedulously the treatment directed for them, that in a very few years we should cease entirely to see examples of tertiary lesions, and the health of the coming generations would be modified in a marked manner for the better. If we can only impress syphilitics with the fact of the critical nature and importance of their condition during the first two or three years of their infection, we can soon make a very perceptible decrease in the mortuary lists of this disease and of its concomitants. I must here impress upon you clearly the fact that a syphilitic person, even if previously healthy, who has not been treated thoroughly and persistently during the early years of the syphilis, is not a good and safe risk, notwithstanding that he may not recently have presented lesions and that his disease may have been mild. It is true he appears healthy and that he shows no evidence of morbid condition, yet we know that he has been the victim of a proliferative disease which has not in the proper stage been properly modified, hence we are not sure that some infiltration may not form and that life will not be compromised. You know that the beneficial action of mercury consists, essentially—and this certainly is a reasonable explanation—in the destruction by inducing fatty change of the neoplasms of syphilis and of rendering them ready for elimination. These new heterologous cells which syphilis causes undergo multiplication into infinite quantities, and besides this their presence in the tissues induces a tendency in such to almost boundless proliferation. In the early stages of syphilis the tendency to proliferation is not alarmingly great, but if the condition is not checked, it goes on, and it then becomes firmly fixed in the economy. In early years the proliferations may be broken up and the tendency thereto uprooted; but if the disease becomes in a chronic manner engrafted upon the tissues, there is a doubt whether an absolutely perfect cure can be obtained. Now, although I think that this early commenced treatment is almost an essential, yet if not delayed too long in the course of syphilis it will also be advantageous. I think you would be prudent in very cautiously dealing with a person who early in syphilis had not been treated or had been treated in an indifferent manner, and who had experienced a somewhat persistent if not even severe course of the disease. Certainly before such a person should be accepted, he should be made to undergo a quite lengthy mercurial treatment, perhaps combined with the iodide of potassium. Thus cell infiltrations are quite thoroughly removed. I think that relapses of syphilitic lesions, particularly of proliferations, are induced by these cells having remained and then from time to time undergoing copious fission. If they are early removed by the mercury they do not engraft a tendency to similar future changes, hence we have no relapses; but if they are left undisturbed to lurk in the tissues, perhaps in the glands, they from time to time, as it were, reinfect the system and induce tendencies to subsequent reinfections. The hyperæmiæ produced by syphilis are also severe in character; they depend in a measure upon the cell proliferations, but they are susceptible of cure by the remedies named. It is readily seen, then, that the danger in syphilis, in the otherwise healthy subject particularly, consists essentially in these proliferative actions and tendencies which are averted or stopped by early, active, prolonged treatment, whereas, if delay occurs, there is a morbid condition towards abnormal cell proliferation induced which may be attended with fatal accidents. Fortunately, even late, we can break up, and I think absolutely cure, this chronic state or tendency, we certainly can in most cases by prolonged treatment judiciously administered. But it is well to caution you against cases which have been neglected in early stages, and though they may be worthy of acceptance it is necessary to look at them critically. I think that in general, if the health of a person is, and has been good, if his syphilis has run a mild course, even if untreated at first, if he or she later on undergo a somewhat prolonged treatment, the subject may be accepted provided there are not any contrary indications. To put it practically, a man was infected five years ago, was and has been healthy, but has not been treated, or but indifferently; his syphilis has been somewhat active, though not manifested by lesion within a year: Is such a man a good risk? Generally it may be said that he is, yet the cautious examiner, aware of what even such an apparently healthy man may undergo in consequence of his untreated syphilis, hesitates, and although he does not refuse him he causes him to undergo a period of probation. These, Mr. Editor, are the main guides for you in the case of a man who was healthy before he became syphilitic; that you assure yourself that he was treated early, actively and persistently; that it is evident from facts that his disease has been favorably modified, and that as his present condition is good, it is fair to assume that his future health will be uninfluenced by his previous disease. I think that it will be conceded that prognostications based upon this lengthened experience and observation can be more positively made and are more to be relied upon than if they are drawn from deductions as to the course of individual symptoms or lesions. Let us now see how the disease affects those of weak build, and those who have some constitutional dyscrasia or debility.

I approach the subject of the influence of syphilis upon persons of the scrofulous or tuberculous diathesis with some hesitation. The truth is that upon this portion of my subject I am confined to practical general conclusions, rather than to clearly and accurately stated pathological facts. As our knowledge of both the tubercular and scrofulous diatheses (if we admit a distinction) is not precise and well defined, it is of course impossible to trace step by step the relation of syphilis to them. I shall endeavor, however, to show that there are certain persons whose organism is of such a nature that in them syphilis is more than in others to be feared. We will divide these subjects into two classes: first, those who show a tendency to abnormal tissue proliferation; second, those whose general health is below the average, and in whom pulmonary affections are readily excited.

The first class of persons are examples of what we term scrofula. It is necessary, however, that I should more fully explain the condition. The state of the system with which they are affected may be either inherited or acquired, and the subjects thereof usually show well-marked signs of it, or at least it can be ascertained by careful examination. Such persons are of delicate fibre, pale and flabby. Their nutrition is not well performed, and they are weak and sickly. In them there is a tendency to subacute hyperplasia of organs and tissues, and congestions are readily excited. The ganglia become swollen under slight irritation, or perhaps are in such a state continuously. Inflammations in such subjects are readily caused, and they run a severe course. Pus is secreted in great quantities, and ulcerations in such persons are liable to be severe and extensive, or to run a subacute course. There may be no symptoms indicative of pulmonary trouble in such subjects, but their lungs are very quickly involved. This condition is what we here recognize as scrofula, and it can be readily inferred that it is not a favorable one combined with syphilis. Knowing as we do the decided tendency of syphilis to induce hyperæmia and hyperplasia, we can readily see that in the system of such a person every factor is favorable to the full development of the disease. In such subjects we may observe that the disease rapidly induces a cachexia which may prove fatal; it may cause or superinduce a visceral lesion, or several of them, followed eventually with death, or it may so powerfully modify any latent morbid predisposition for the worse, that the victim is carried off. In such subjects, pulmonary affections may be caused by the syphilis, without previous structural predisposition, or again it may, if such exist, even in a mild form, exert a malign and specific influence upon it, which is beyond the control of medication. Such subjects as these, if syphilitic, are bad, and as risks are almost unacceptable; however, something can be said in a hopeful manner of their future under careful treatment, assisted by auspicious surroundings. Such subjects even may pass safely through the ordeal of the disease. As to the course of syphilis in them, it may be said that the danger is most serious during the early years of its evolution. If they pass through, we may say on the average the first three or four years of their syphilis without complication, and at the end of that time, the treatment having been active and appropriate, if they seem healthy, it may be assumed with good reason that they are tolerably good risks. Care must always be exercised in the examination of such persons.

Turning our attention now to the second class, we are here met with obstacles. It is so difficult to determine with precision both what the tubercular diathesis is, and what persons may present it later on, that I am forced to speak with caution. In practice the best course to pursue is to inquire carefully into the family history, antecedents, and present condition of the patient, and from the data obtained to draw as near as possible correct conclusions. Syphilitics who have descended from a family in which pulmonary troubles have been frequent, particularly if their parents, or brothers and sisters, have given evidence of such diseases in an acute form, are to be looked upon with great suspicion. If the patient himself gives evidence of frequently recurring, even though mild, affections of the chest, it is fair to assume that his syphilis may enter largely as a complicating condition into their course. If there is, however, structural trouble in the lung, and if the patient is also syphilitic, he should not be accepted almost under any circumstances, certainly not until a considerable length of time has elapsed, during which he undergoes treatment. It is possible that a restoration to health may be produced, but this should not be assumed as being permanent, until some years have elapsed from the date of contagion. In these subjects the crisis may be expected early, let us say within the first few years, and that if they pass through that period without complications having arisen, it is certainly a circumstance of favorable omen. To sum up, I may say that all persons who have a pulmonary weakness are bad subjects for an attack of syphilis, and as risks for insurance should not be accepted until they give full assurance that they have passed the crisis safely. Too much caution cannot be exercised in dealing with such parties.

As syphilis manifests itself in such varied conditions, and attacks so many organs and tissues, it certainly is fair to assume that any part of the economy which has been impaired in its structure or function would be more liable than another to be affected by it. Again, as it awakens latent morbid tendencies, it is liable to complicate them in a serious manner. I have endeavored to arrive at some formula of statement by which I could point out the subjects most liable to syphilitic affections of the nervous system. These latter are often followed by death, consequently it is important to determine, if possible, who are to be the probable victims. We know that cerebral troubles in general, as well as neuroses, are in a measure hereditary, and from our knowledge of the action of syphilis, it is fair to suppose that such an hereditary condition might be powerfully complicated. Therefore if a patient who has shown any such tendency, or who has acquired any nervous or cerebral affection, becomes syphilitic, it is certainly judicious to suspect that he may have syphilitic complications. Owing to the formidable character of these, and of the dangers with which they threaten life, such subjects should not be hastily accepted as risks, even though they may give no evidence of any present or impending trouble. This is all that science will warrant me in saying in advance. As to the ulterior development of syphilitic nervous affections in healthy persons, I have simply to repeat what I have said about the chances of such in general, that if they are properly treated early in the disease, and if during that period they do not give evidence of any implication of the nervous system, they may thereafter be assumed to have an immunity to such, at any rate in the majority of cases.

It would be improper to pass unnoticed the rheumatic condition, hereditary and acquired, in its relation to syphilis. The latter disease certainly very often does stamp its morbid impress upon the former. In very many cases life is not compromised; still, in a large number of cases of severe rheumatic condition of the body, syphilis has run a severe course. I have often observed it to intensify the sufferings of such patients, to induce in them a condition of mal-assimilation, by which they become very weak, debilitated, and thin. Space does not permit me to consider this interesting subject as fully as I wish, therefore I pass it over in the general way of mentioning it. The practical point I want to bring out is this, that the combined rheumatic condition and syphilitic diathesis is often a formidable one, even to the extent of compromising life. Such subjects should be watched carefully, and only accepted after the lapse of a number of years, in which, under treatment, they have been apparently cured. If a syphilitic, early in his disease, presents himself with a general weakened condition due to chronic rheumatism, he should not be accepted.

Syphilis influences the two sexes somewhat differently. The female is in general much more profoundly affected than is the male, and, owing to various reasons, is often seriously impressed by it. Though many women experience a very mild course of the disease, I think it will be conceded that the number of those whose ordeal is very severe is much greater than is that of men. However, all things being equal, if they pass through the first few years well, and are carefully treated, we may accord to them the same cheering prognosis which we have found we were warranted in giving to the male.

I need not dwell upon the severity of syphilis in the negro and in mixed races, but shall content myself by stating the fact that they are not in general good risks.

This, Mr. Editor, is, I believe, a comprehensive but not exhaustive review of the subject suggested by you for consideration, and I trust that I have been able to bring out true facts and to have stated them in an intelligible manner.

125 E. 12TH ST., April 12, 1875.

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OTORRHŒA AS A CAUSE OF REJECTION.

By ALBERT H. BUCK, M.D.

THE question is often asked, "What value should the medical director of a life insurance company attach to the circumstance that an applicant is afflicted with a chronic purulent discharge from the ear?" Should a sweeping rule be laid down that all such applicants are to be rejected, or only accepted for short endowments,—a practice which prevails, I am told, among the best English companies,—or should these cases be investigated and the decision made to depend upon the result of the investigation? The sweeping rule is, of course, the safest and simplest. At the same time such a course would lead to the rejection of many good risks, which other companies would probably be quick to accept.

The reason why this class of risks is looked upon as undesirable is this:—these individuals, besides having to run the same chances of death from disease and accident which other men must run, are afflicted with a local inflammation in very close proximity to the brain, an inflammation which may at any time excite a fatal meningitis, or, by involving the veins of the neighborhood, lead ultimately to an embolism of some important arterial twig, or to the equally serious condition of septicæmia or pyæmia. Some, while fully recognizing this danger, may ask the question, Is it not possible to discriminate between these risks, and to separate those, in which the danger is but slight, from those in which it is more threatening? To a certain extent this might be done. A person accustomed to examine the ear could, by an examination, select without any difficulty those cases in which the danger was so slight as not to impair the quality of the risk. Cases of ear trouble, however, come up so rarely for consideration, that most companies would prefer to adopt the sweeping rule of rejection rather than incur the expense and delay of a special examination. On the other hand, there is no doubt but that a few questions properly answered will generally enable the medical director to ascertain which of these risks it is best for the company to reject. I would suggest the following as suited to elicit the desired information:—

How long have you been troubled with a discharge from the ear?

Is it constant, or does it sometimes stop for a time?

Is it thick or watery in character?

Has it an offensive odor?

Is it ever tinged with blood?

Are you subject to pain in the affected ear, or to pain in any part of the head? If so, state full particulars.

Does pressure behind, above, or in front of the ear cause pain?

If, in answer to these questions, it is stated that the discharge is neither bloody nor specially offensive, and that it is not an abundant discharge; that it is never accompanied with pain or "headache;" and that pressure in the vicinity of the ear does not cause pain, the risk may fairly be considered—other things being satisfactory—as not an extra-hazardous one.

Miscellaneous.

THE AGE OF SUICIDE.—The influence of age upon suicide is a study of more than speculative interest, on account of its practical bearings and of the ease and precision with which it can be demonstrated. By age is meant the critical periods of life. These periods having many components besides the mere fact of years, it is apparent that what we have to examine is a many-sided phenomenon, including together with it the advance in life, the workings of physiological, mental, and sociological causes. It has been lately examined by Dr. O'Dea, and it appears that the maximum of suicides of both sexes occurs between the ages of twenty-five and fifty-five. Previous to the twenty-fifth year there is a sudden increase from two suicides between the ages of five and ten, to 136 between twenty and fifty-five. After fifty-five the tendency to suicide declines, but more gradually than it rose, except at sixty-five, where the number increases from 81 to 83—a rise so slight, however, as to be little worth considering. There are, therefore, three suicidal periods in life: those of organic and mental growth, of organic and mental completion, and of organic and mental decline. In the first the chart shows 80; in the second, 942, and in the third, 311. Comparing the periods in round numbers, it may be said that they are as one for childhood and adolescence to twelve for adult life, and to four for the years of bodily and mental decay. The influence of sex and its attendant circumstances upon suicides at the different periods of life is shown upon the charts. With females, as among males, there is a sudden and abrupt rise until the twenty-fifth year is reached. This rise is continued to the thirty-fifth year, at which the maximum of suicides occur among women. The period from the twenty-fifth to the thirty-fifth year corresponds to that of the greatest pressure from domestic troubles and responsibilities, and also with the greatest activity of the maternal functions. The line thence descends abruptly to the forty-fifth year, whence it rises to the fiftieth, the critical period of mature female life, and then goes down, down, until it reaches the level from which it started. There are, therefore, two culminating points, and while the line on the male chart is undulating and sustained, that on the female chart is vertical and abrupt. The lower of the male culminating points is the higher of the female, and, contrariwise, the lower of the female is the higher of the male. These charts do not show the relative frequency of suicides among the two sexes. The ratio of suicides to population in the United States is (for the period covered by the last decennial census) 25 to 100,000 among males, and 3 to 100,000 among females. The only periods at which suicides are nearly equal for both sexes is from fifteen to twenty years, during which the number of boy suicides was 34, of girl suicides 32. After this the number of suicides among males is much greater than among females.—*London Med. Record.*

Female Mortality.—Mr. A. Smee, F.R.S., fully understood from the paper which had been read, and which accorded with what they thoroughly ought to know, that female lives as a whole were rather better than male lives. How came it, then, that every practical man engaged in insurance was very much afraid of female lives, and would never like to hold any very large number of them in his office? As far as he had looked into this question, the answer was perfectly simple. It was that the female between 16 and 45 was exposed to the risk of childbirth. That risk might be likened to a sword suspended by a slender thread over every woman's head. If the string broke and the sword descended upon her, she had a very great risk of losing her life from the event. It was very well to say that women were better in the duration of their lives from 20 to 70 years of age. That might be true; but it was also true that if they took a number of females in the child-bearing period they would find that the mortality which occurred to them was very different from that which occurred to females who did not give birth to children, and very different from the mortality of males. It would be found that in this country the greatest number of children were born when the mothers were about 25 years of age. He thought that it would be found that at about the age of 25 years the greatest number of deaths occurred among women year by year, relatively to the number among males. Speaking from memory, he believed that the deaths in the 25th year were about 75 per cent. more among married women than among unmarried women or men. That 75 per cent. of deaths diminished year by year until they had crossed the line of about 47 years. At 47 the number that died was identically the same among women as among men. After 47 the female character for longevity again came into play, and women bore a pre-eminence in that respect over men for the rest of life. If actuaries looked at that simple enunciation of the fact they would find that a great deal of the difficulty with which they had to deal lay in the premature deaths of females in the parturient period between 20 and 47. There would be no difficulty if, when a female made a proposal for insurance, she was compelled to pay a premium for the rest of life. She, however, got over her time of danger and then ceased payment. He had seen the proposal made—but very seldom taken—for a woman to insure her life for a one-third credit premium, the premiums payable quarterly, so that after she had passed her risk she could drop her insurance. That was the danger from which insurance companies suffered, and about which practical men had to be careful. They must take care that a woman did not come into the society during the time she was exposed to risk, and go out as soon as the risk had passed away. He believed that that was the whole story of the danger of the insurance of females. He gave a little weight, and but a very little, to the assurance of a woman by her husband who knew that there was some defect about her. But every one must know that such cases were sometimes insured. Another point which had been raised in the paper was whether the examination of females was as perfect as that of males. Unquestionably the medical men must use more delicacy, and if a woman came before them they must not disgust her by such questions or such treatment as would cause her to go away. He remembered seeing on one set of papers the question gravely asked of the medical man, "Have you palpated her abdomen?" He need hardly say that that was an operation which no medical man who had any respect for delicacy would like to practise in such an examination. He, therefore, thought that their estimate of female lives was a little worse than that of male lives. Moreover, women had a greater faculty of concealment than men. If a medical man asked them a question they would sometimes exercise a very happy knack of saying "no" when they ought to say "yes;" and they would altogether forget slight occurrences, which they might think quite immaterial, but for which a medical man would reject the proposal. All these things were very simple, and he thought that any medical man of skill taking them into consideration might work the assurance of a number of females so that they should be as good as males, barring the pregnancy and its consequences. That risk occurred over a series of years at irregular intervals, and offices ought always so to protect themselves that women should never have the benefit of the insurance during the time of peril, and throw it up during the time when their mortality was less.—*Remarks made before the London Institute of Actuaries.—From the Spectator.*

Weight and Height of Americans.—According to a recent work of Mr. B. A. Gould, Actuary to the United States Sanitary Commission, in which some very interesting figures relative to soldiers in the last war are given, it appears that the American nation, instead of being degenerate and inferior to the European race in point of physical perfection, is far the reverse. The figures adduced show that "the tallest men were from Michigan, Illinois, and Wisconsin; the next tallest, from New England, New York, New Jersey; and the shortest from Scotland, England, Germany." In weight, the men of Kentucky and Tennessee were the heaviest, averaging 150 pounds; England, Scotland, France, Belgium, all between 138 and 139 pounds. The ratio of weight to stature gave in pounds to the inch: Ohio and other Western States, 2.185; New England, 2.131; England and Scotland, 2.118; Germany, 2.168.—*Medical and Surgical Review.*

Irish Statistics.—During the last quarter of the year, the birth rate in Ireland amounted to 24.4 in every 1,000, and the death rate to 17 per 1,000, the latter being somewhat beyond the average of preceding years, and the higher mortality being due to the prevalence of scarlatina, and to the inclement weather.

Original Lecture.

THE GENERAL PHYSIOLOGY OF THE MOVEMENTS IN THE BODY.

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Phonographically reported for The Medical Record.

Lecture I.

Gentlemen: We shall this morning begin the subject of movements. The movements which are met with in the body may be divided into two classes—passive movements and active movements. Under the head of passive movements we simply refer to those which are produced, as I have already told you,* by the action of elastic tissues, especially by the yellow elastic fibrous tissue.

When a muscle contracts, acting upon certain parts of the body, motion is produced. When relaxation takes place, under certain circumstances, the return to the normal position is produced, in part at least, by the elasticity of the yellow fibrous tissue. This illustration gives us an idea of one class of movements which is observed in the body. On the other hand, active movements are produced by the contraction of muscles. There are two kinds of muscles that contract, viz., the voluntary and the involuntary. The movements produced by the contraction of involuntary muscles are slow and gradual; while those produced by the voluntary muscles are rapid and impulsive. The contraction of a voluntary muscle takes place upon the reception of a stimulus, and is followed by a relaxation; both contraction and relaxation being comparatively rapid. Whereas after stimulation has been applied to involuntary muscles, the contraction goes on slowly, after a time reaches its maximum, and relaxation follows in nearly the same manner. Examples of the action of involuntary muscles, are the peristaltic movements of the intestines, and contractions of the muscular fibres of the uterus during labor. Now, besides these, there is another group of movements which seem to be classified alone. These are movements seen in peculiar substances. First, there is the movement observed in *protoplasm*, or protoplasmic movement. Protoplasm we have already defined as a mass of living matter. Why do we say that it is living? Because it has the power of motion, and the power of taking to itself nutritive substances by which its existence is maintained. These protoplasmic masses are among the lowest orders of beings. In these beings we may observe a motion that is slow, slight to be sure, but which is for the purpose either of surrounding material for purposes of absorption, or for purposes of locomotion. If for example we examine a mass of protoplasm represented by a circle,† we shall find that the manner in which movements occur in this substance is as follows: At certain points little projections appear, termed pseudo-pods; and then these projecting portions are returned within the mass, so that the original circle is restored. The portions will project a little farther, a second time, and sometimes the form of the mass becomes changed from a spherical to an oblong shape. Now, if one portion becomes fixed, and the other portion is drawn into the substance of the mass, so as to form a circle again, it is evident that there has been a movement from one point towards the other. This is what takes place in the wandering cells, or white blood-corpuscles, or leucocytes; these bodies being simply masses of granular protoplasm.

Besides this protoplasmic movement, we observe in the body movements which are seen in connection with *cilia*, upon ciliated epithelium. There are certain situations in which the movements of cilia may be observed. The form of the epithelium is conoidal, which you already well understand, and the cilia are the numerous hair-like appendages attached to the free or broad extremity. The pointed extremity of the epithelial body is attached to the basement membrane or submucous tissue upon which it rests. Now, during life and a certain length of time after death, there is a constant movement of these hair-like appendages, called ciliary movement, and this is always from within outward. If, therefore, we have a mucous membrane, like that which lines the respiratory passages, which is covered with ciliated epithelium, we may observe a continual movement over its surface from within outward.

In this way a considerable current is established, and the function, it is self-evident, is to prevent the entrance of certain substances into the deeper portions of the lung. The rapidity of these movements, of course, is not great, but a current can be observed that moves at the rate of from $\frac{1}{250}$ to $\frac{1}{175}$ of an inch in a second. This is the average of vibration in the cilia of the frog; but in the higher animals, where the cilia are more abundant, the movements are much more rapid. In the nasal and respiratory passages of man the movements are very much more rapid, and may reach as high as 350 vibrations per minute. How is this motion produced? I cannot tell you, for we do not know exactly how it takes place. It does not, however, depend upon any nervous agency. It seems rather to depend upon some inherent property possessed by the homogeneous substance of which the cilia are composed. Upon further examination it has been found that this ciliated movement is influenced by certain reagents; for if we subject the cilia to the action of acids, although of feeble strength, the movements cease at once; while if we subject them to the influence of alkalies, diluted, the movements for a certain time will be increased, but very soon after cease altogether. Again, these ciliary movements continue, although the animal may be in a condition of complete anæsthesia either by chloroform or ether. When, therefore, the nerves are deadened to all sensibility, these cilia continue to move, showing that they must possess some peculiar property which does not belong to other tissues. So far, gentlemen, we have only referred in a general way to the various kinds of motion observed in the body. There are, however, besides the motions which have been described as active and passive, certain phenomena which we have studied while upon the subjects of deglutition, circulation, etc. With reference to the circulation, the motion *seen* is almost entirely that produced by the elasticity of the arteries. In the arterial system a certain amount of motion is produced by the contraction of the involuntary muscular fibres of the arterioles. In connection with the motion of the heart, the movements are referred to the action of the striated muscle, because its movements are powerful and sudden.

When a muscle contracts there are certain phenomena which attend its action. In the first place, the red or striated variety of muscle possesses what is termed *elasticity*. In other words, if we hang upon a muscle a certain quantity of weight, it is found that it is capable of being extended or stretched, and then if the weight be removed, that it is capable of returning to its original length. This will take place provided the weight attached to the muscle be not too great. Take a piece of india-rubber and attach a given weight; it will be extended a certain distance; add double the weight, it will be stretched proportionately to a greater extent, or double the distance. But this does not hold good in the case of muscle, although both the india-rubber and muscle possess the property of elasticity. The muscle will be stretched a certain distance with a given weight, but after that, if the weight be increased, the elasticity gradually diminishes out of proportion to the weight. When we reach a certain point the muscle has no power to return to its original length, for we have passed the limit of its elasticity. This elasticity can be observed only during the life of the muscle. Kill the muscle by dipping it in warm water, and then add weights to it; the muscle can be extended, but when the weights are removed it has no power to return to its normal length.

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* In a previous lecture.

† Diagram illustrating amœboid movement.

There is then existing in striated muscle as an original property, *elasticity*, by virtue of which, when stretched, it restores itself to its normal length. There is also *extensibility*, by virtue of which the striated muscle has the property of being extended or stretched. These phenomena can be demonstrated beyond all doubt, although in some muscles they present themselves only to a slight extent.

In addition, striated muscles possess two or three peculiar characteristics. The first of these is *tonicity*. By the tonicity of a muscle, is meant that property by virtue of which it has a constant tendency to contract. When we make section through living muscles, as in amputations, they immediately retract and remain retracted. This is due to the tonicity of the muscles. If paralysis occurs upon one side of the face, the muscles upon the opposite side, by virtue of their tonicity, draw the face, producing distortion. The balancing effect produced by the action of two opposed sets of muscles depends upon tonicity.

Another property is muscular *irritability* or *contractility*. By the term irritability, in its general sense, we refer to the property by which any tissue or organ responds to the action of a stimulus. By response to a stimulus applied to a muscle we have contraction; and the contraction is due to the stimulus applied *directly* to the muscle, or else to the nerves which supply the muscle. There are contractions produced by various kinds of stimuli, but if we examine these in succession, we shall see that the general effect produced is about the same. For the purpose of demonstration, I will take this frog, break up the medulla oblongata, then decapitate, for convenience break up the spinal cord to prevent reflex action, and make the ordinary muscle and nerve preparation.[*] I will apply to the muscle and nerve the various kinds of stimuli. First, as I pinch the nerve, a contraction of the muscles takes place. This is a mechanical stimulus applied to the nerve by means of which a contraction of the muscles follows. Next I pinch the muscle,[†] and then a contraction follows, but not so violent as that caused by pinching the nerve. I will make use of another form of stimulation, viz., chemical. For this I will employ a strong watery solution of salt. When I dip the extremity of the nerve into this solution, you see that contraction of the muscles immediately follows. Heat can be employed with the same results, viz., contraction of the muscles. It is a question of some importance to determine whether or not the muscle depends upon the nerve for its contraction, or whether there is residing in the muscle itself a power by means of which, having received a stimulation, it will respond by a contraction. We shall study this a little further on. In the next place I will apply the electrical stimulus, using the constant current.[*] As a feeble current is applied to the nerve, you observe the most marked contraction yet seen. When the constant current, therefore, is applied to the nerve, contractions are produced in the muscles to which the nerve is distributed. If now you observe the effect produced as a current is passed through the muscle itself, you will see the same contraction, only not so well marked as when applied to the nerve. I now prepare a fresh muscle[†] with nerve attached and place it in an apparatus by means of which I can record upon a moving cylindrical surface all the phenomena attending contraction and relaxation.

If for a moment you will recall the fact that, in the gastrocnemius of the frog the time required, after the application of a stimulus, for the completion of a contraction and relaxation, is less than one-third of a second, you can see that it is impossible to detect, by the eye alone, all the phenomena produced. I therefore resort to what is known as the *graphic method*, to assist in determining the changes that occur in the muscle during its contraction and relaxation. In this manner I have recorded in the most accurate way possible every motion that has taken place during the contraction of the muscle.[‡]

While these contractions are being recorded, I will refer to some other phenomena presented by muscular movement or contraction.

When a muscle contracts it becomes *shorter* and thicker. It shortens about one-tenth its original length, and we may know that it becomes thicker and harder if we will observe what takes place, for instance when we contract the biceps of the arm. Now, what are the exact phenomena produced by the contraction of a muscle? This was once a very difficult question to answer, but we can now answer it very well, since we have a more perfect knowledge of the anatomy of the fibre, and the opportunity of studying the phenomena by means of the graphic method. When the muscle contracts, it shortens and hardens; but in its shortening and hardening does not change in volume. What we notice, if we examine under the microscope a single fibre which is contracting, is this, the striations during

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[*] This was done by amputating the leg at the hip, exposing and isolating the nerve, and then cutting away the greater part of the muscles of hip and thigh, leaving the femur and rest of the leg.

[†] Gastrocnemius.

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[*] The battery employed was a 40-cell Trouvé, very small elements—only a few cells made use of in this experiment.

[†] A preparation consisting of the lower part of the femur with the gastrocnemius attached, also the nerve supplying the muscle, was made so as to allow a hook to be fastened in the tendo Achillis. The femur being placed in the clamp of the *myographion*, is firmly secured, and a fine wire attached to the hook in the tendo, passes down to a *tambour* constructed on Marey's plan as adopted quite recently. A bell-glass covers the whole chamber in which the nerve-muscle preparation is contained, and by means of wet sponges laid upon the floor of the chamber the atmosphere is kept moist, which prevents both muscle and nerve from becoming dry, and in this manner a long series of observations may be made. By means of a second tambour, the slightest movement of the muscle is recorded with a very delicate writing lever upon Secretan's cylinder, which revolves with the greatest accuracy once in one minute, or once in ten seconds, or once in one second, as may be desired. The cylinder is covered with white glazed paper smoked with a tallow candle, so that the writing lever marks a white line with very little friction. The tracings are fixed by running the paper, when removed from the cylinder, through varnish, and then hanging up to dry.

[‡] The apparatus was then arranged to produce an *imbricated tracing*, according to Marey's latest method. The imbricated tracing is obtained by means of a car moved by clock-work which carries the writing lever along the cylinder, so that a spiral would be traced if the muscular contraction did not occur. The muscle is caused to contract by means of the galvanic current being allowed to break into the nerve (or muscle) at stated intervals, which is accomplished by means of special apparatus.

the contractions of the muscle approximate each other, so much so that the ordinary dark spaces seen on the fibre at rest, appear like a series of dark lines, and just at the point where these lines are brought close together the muscular fibre swells; there is a wave which travels in this way quite rapidly throughout the fibre. The wave moves at about the rate of forty inches in a second. Much depends upon how many fibres have been stimulated, for if we excite the muscle itself it will be found that the whole of it is not in a state of contraction at the same time, but that the wave of muscular contraction passes along at about the rate indicated. If, however, we stimulate the nerve, we find that the muscle has, as it were, a contraction of every fibre at once. This undoubtedly is to be explained in the following manner. When a single muscular fibre is stimulated a contraction is produced, and a single wave transmitted, but when the nerve is excited, the stimulation is carried to the muscular fibres themselves through a series of nerve filaments, several of which terminate in each muscular fibre, and the effect is the same as if a large number of stimuli were applied to the muscular fibre at different points on each fibre, at one and the same time. In this manner the whole muscle is thrown into contraction at about the same instant. A certain length of time elapses between the application of the stimulus and the development of the response, which can be calculated. This is what

Fig. 1.

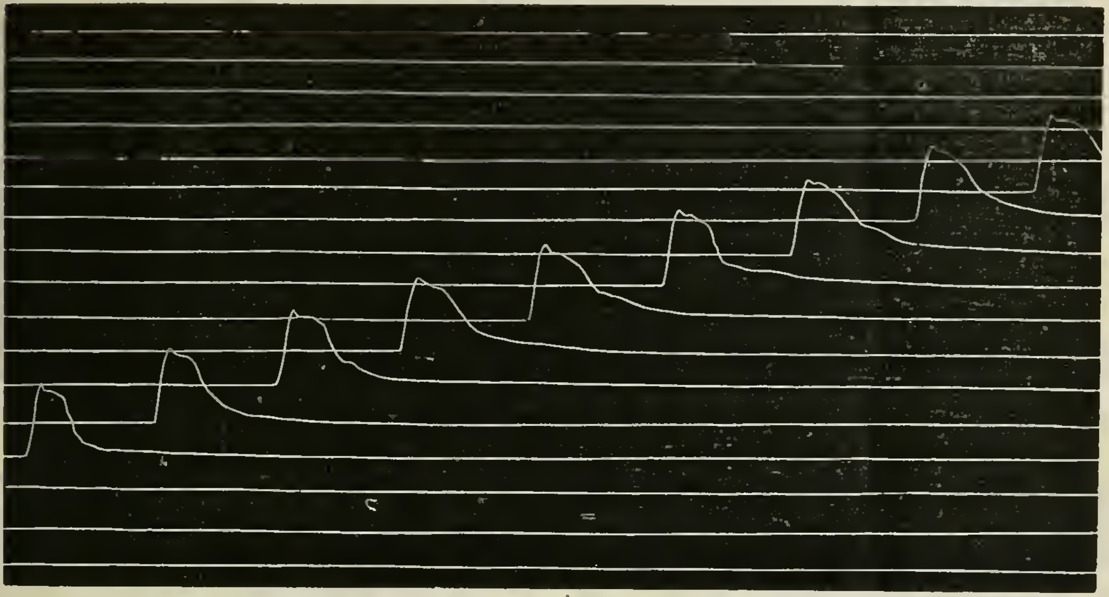


Fig. 2.

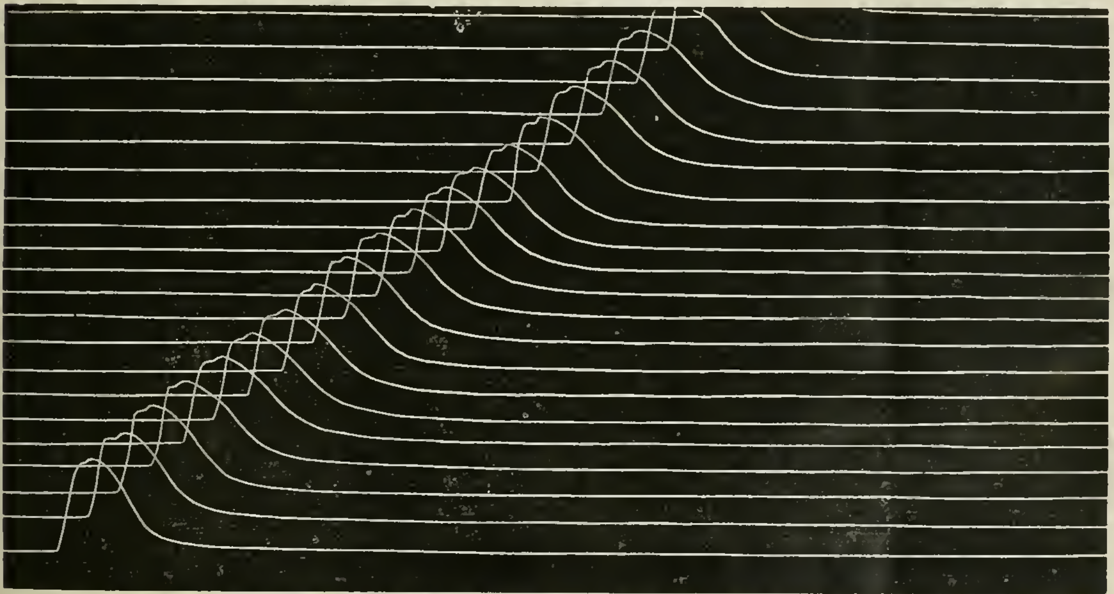
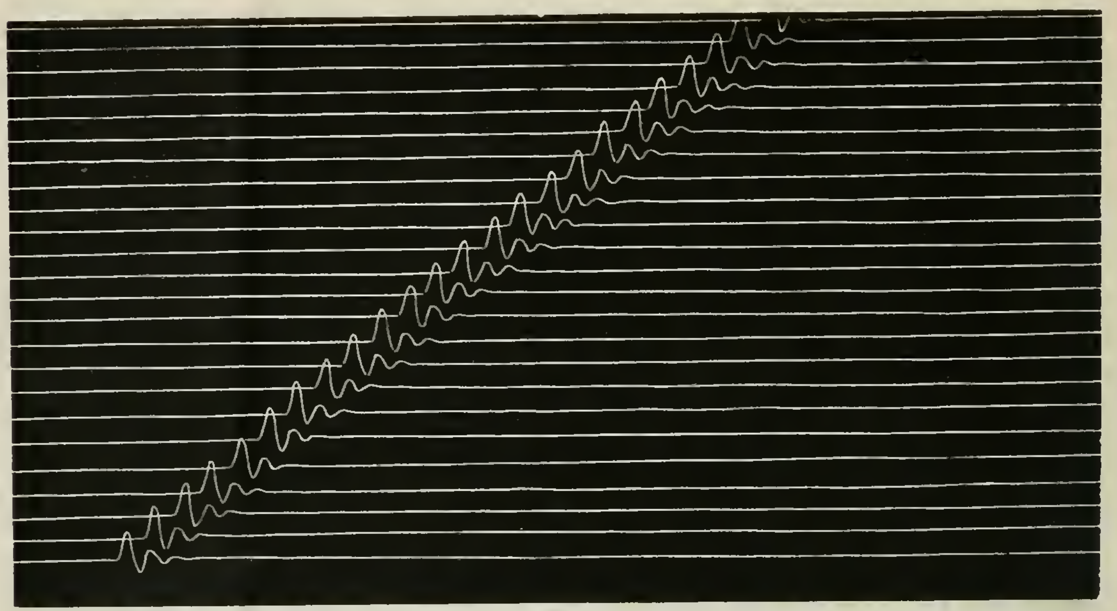


Fig. 3.



is called the *latent period*, or the period previous to the occurrence of the contraction, and will be described further on.

What we have studied to-day, then, may be summarized as follows:

There are movements in the body which may be classed under two general heads, passive and active. Besides, we have what are known as protoplasmic and ciliary movements. Under the head of passive movements are those produced by the elasticity of certain connective tissues, and these are exhibited principally in connection with muscular contractions, restoring the parts to their original position. We refer, under the head of muscular contraction, to the striated or voluntary variety.

These muscles possess certain properties.

First, *irritability*, by virtue of which they respond to the influence of stimuli and contract.

Second, *tonicity*, by virtue of which they are in a constant state of passive contraction.

There remain the hardening and shortening with thickening without change in volume; *elasticity*, by virtue of which they may be stretched and then return to their original length. These muscles also possess the property of *extensibility*, by virtue of which they are able to stretch when weighted, but having reached a certain point, extensibility diminishes out of proportion to the increment in weight.

From the tracings obtained, it will be seen that the muscular contraction takes place in the following manner, viz.: the contraction is rapid and sudden, reaching its maximum instantly (as shown by the nearly perpendicular lines in the figures). The relaxation follows immediately, and is comparatively slow (as the curved lines designate). One-third of a second represents about the time occupied for both contraction and relaxation.

Fig. 1 gives a very good idea of the individual contraction and relaxation, as the tracings are separated somewhat.

Figs. 2 and 3 are imbrications, arranged nearer to each other, so that the effect of continued irritation may be observed.

Original Communications.

ON IODOFORM AS A REMEDY IN THE TREATMENT OF AFFECTIONS OF THE CORNEA AND CONJUNCTIVA.

By CHARLES S. BULL, M.D.,

OPHTHALMIC SURGEON TO CHARITY HOSPITAL, ASSISTANT SURGEON TO THE N. Y. EYE INFIRMARY, MICROSCOPIST TO THE MANHATTAN EYE AND EAR HOSPITAL.

About a year ago the attention of the writer was called to the therapeutic value of iodoform as a local application in cases of pannus and phlyctænular keratitis, by Dr. Edward Curtis, of this city, and since that time the writer has used it in a large number of cases with very beneficial results. At first I employed it empirically, or at least attributed to it only an anæsthetic action; but being somewhat surprised at the effects produced, I have studied its action more carefully. In the first case in which it was employed, which was a woman with a sluggish keratitis marginalis, with small phlyctænulæ on the edge of the cornea, and an obstinate form of marginal blepharitis, the patient came the next day and said the eyes felt very much better; there was scarcely any lachrymation, and the feeling of irritation and the photophobia had almost disappeared. The application was continued daily, and the improvement continued. I now began its use systematically in the class of cases just mentioned, and was almost always gratified by a rapid and steady improvement. The results in each case were carefully observed, and thus an attempt was made to discover its mode of action; how the effect was produced, and whether it was due to a purely local action or to a constitutional influence as well.

We know that iodoform, when taken internally, acts as a tonic, a stimulant and an alterative, and exercises a remarkable influence on the nervous system. Its local anæsthetic effect is most marked, and is illustrated by its anodyne influence in cancerous and other ulcers. Though it contains 29 parts in 30 of its weight of iodine, it has not the least local irritant action. On account of this large proportion of iodine it is supposed by many that it may replace the latter as a remedy, with the advantage of being a non-irritant, and of having an organic nature, qualities which would promote its absorption and assimilation. Now, if, in addition to using the drug locally, we determine to administer it internally, we must endeavor to explain, 1st, What is the ultimate effect of its action on the system; 2d, In what way does it operate; and 3d, To what organ or tissue is its action directed.

Now we know that iodine acts neither by eliminating, nor by stimulating, nor by depressing, when taken internally, but appears to counteract in the blood the agency of certain morbid poisons, and is thus really an alterative. It tends especially to affect the blood and blood-making organs, rather than the nerve-tissues. When we apply iodoform in substance locally to the eye, we must decide how it acts, whether by mere contact; its influence being propagated to more distant parts by means of the nerves; or by passage thence into the system through the medium of the blood-vessels and lymphatics. Now, in laying down the rule of the necessity of local access for the production of the primary effect of a medicine, we must be careful to remember that no proper medicinal action can be conducted along a nerve fibre, for it has long been known that vascular connection is necessary for the propagation of constitutional effects.

There are quite a number of medicines in our pharmacopœia which have a marked local action on mucous membranes, and among these we must place iodoform, owing to its well-known properties as a local anæsthetic, whether as a vapor or in substance. Continued observation of the results of iodoform in certain cases have convinced me that the beneficial effect is mainly owing to the local action of the drug as an anæsthetic, but I also believe that it exerts an alterative action in the system, through absorption by blood-vessels.

The first noticeable sign of its action after being dusted upon the cornea and into the cul-de-sac is rather a negative one, in that it causes no irritation at all, or at least a very slight one, and this in but very few cases. This is rather remarkable when we consider that iodoform in substance is crystalline in structure, each crystal having very sharp angles. Perhaps its non-irritating character is due to its being entirely devoid of corrosive properties.

Another sign of its beneficial effect is the cessation of the pain and photophobia in cases of pannus and obstinate ulcer of the cornea, where these symptoms are often very troublesome. The pain often ceases after the first application, and the photophobia also disappears within a day or two. May we not explain the disappearance of both these symptoms as due to the anodyne action of the drug? In some of these cases of pannus and phlyctænular keratitis, the sensitiveness of the cornea and conjunctiva is very greatly increased. The terminal nerve twigs grow into the new inflammatory tissue, and as they generally are very superficial, are consequently exposed to the constant secretion of a pannus accompanied by granular lids, or to atmospheric influences, or to both, particularly if the cleansing of the eyes is frequently repeated. Atropine, though it may dilate the pupil, often fails in quelling the pain. Now the iodoform comes into immediate contact with the exposed nerve-fibres, and produces within a very short space of time complete anæsthesia of the parts, and if the action is kept up long enough, and is frequently repeated, the anodyne effect extends more deeply into the inflamed tissues. In most of the cases I kept up the use of caustics to the lids as usual, where there was any hypertrophy of the palpebral conjunctiva in connection with the pannus, but having found that the iodoform worked very well alone, I discontinued the use of the caustics in all cases except where there was real trachoma or granular lids, and have been very well satisfied with the results. Of course in the latter class of cases, caustics must be regarded as absolutely indispensable, and the iodoform can only be looked upon as an adjuvant in the treatment.

Most of these cases of pannus and phlyctænular keratitis occur in persons of a strumous diathesis, and whether this has anything special to do with the beneficial effects of the local action of the drug, is a question not yet satisfactorily settled in my own mind. Owing to the large amount of iodine it contains it might be thought that enough was absorbed by the vessels of the conjunctiva to exert a specific action upon a strumous constitution. But it is still somewhat doubtful whether the lachrymal or conjunctival secretion contains any ingredient which will dissolve the iodoform, and thus facilitate its absorption, for it is insoluble in water.

In these cases of pannus and keratitis, dependent on a strumous diathesis, though there is nothing unique or characteristic about them, yet we almost always administer internally some form of iodine in combination with tonics, in addition to the local treatment, and the syrup of the iodine of iron is always a favorite remedy; but of late I have been giving iodoform internally to these patients in doses varying from half a grain to two grains, in combination with the citrate of iron and quinine, three times a day, according to the age of the patient, and with very excellent results. The cure of the pannus or keratitis is hastened, and a very beneficial effect is produced upon the general tone of the system. It seemed to facilitate the absorptive process in enlarged glands, and thus certainly acted as an alterative.

I have never noticed any ill effects from its local or internal administration, even when its use has been continued for weeks, and with children its internal administration seemed to be borne better than the syrup of the iodide of iron. Of course, after some weeks the system becomes almost saturated with it, although some of it must be carried off by the urine, but a great deal is given off in the pulmonary exhalations, and the patient's breath has a very perceptible odor of iodoform. How long this will last after the administration of the drug has been discontinued, I do not know, as the cases almost always disappeared from observation, when the severity of the symptoms subsided. M. Maître affirms that iodine can be detected in the saliva and urine, two hours after iodoform has been administered, and that nearly three days elapse before the whole is eliminated. He states that from a dose of thirty or forty centigrammes, no effects are observed except a slight increase of the appetite. In large doses the drug acts as a narcotic and has two stages: the first stage is one of more or less prostration, with symptoms of intoxication followed by complete recovery. If still a larger dose is given, the second stage comes on, and is marked by intense excitement, anxious breathing, a strong and bounding pulse, opisthotonos, and death.

Iznard uses iodoform in solution as a local application, and recommends the following formula:

℞. Iodoformi..................	grammes 2-3.
Glycerinæ..................	grammes 30.
Alcohol..................	grammes 10.

This, however, would probably occasion considerable pain, and hence the drug in substance is to be preferred.

A CONTRIBUTION TO AURAL SURGERY, WITH A DESCRIPTION OF A NEW EAR-DRUM.

By BEVERHOUT THOMPSON, M.D.,

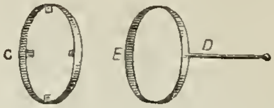
VISITING PHYSICIAN TO THE CENTRAL DISPENSARY; ONE OF THE ATTENDING PHYSICIANS TO THE OUT-DOOR DEPARTMENT, BELLEVUE; MEMBER OF THE NEW YORK COUNTY MEDICAL SOCIETY.

Having a patient to treat suffering with tubal catarrh, whose membrana tympani had been destroyed by ulceration resulting from otitis media, and whose hearing was so much impaired that the tick of a watch could only be heard when placed in direct contact with the ear, I attempted to increase the hearing with an artificial ear-drum, but not deriving much, if any, benefit from its use, it occurred to me that I might devise a drum to resemble the natural one more nearly, and which would vibrate to better advantage. After several ineffectual attempts, I succeeded in constructing a drum that accomplished the purpose much better than I anticipated, and increased the hearing distance of my patient three to four inches.

In order that the advantages of the drum which I offer to the notice of the profession may be appreciated, I will refer to the physiological uses of the membrana tympani, describe the drum commonly used, point out its defects, and endeavor to show wherein mine is superior. The waves of sound being collected from various directions by the external ear, and conveyed to the meatus externus, are concentrated upon the tympanum, striking the membrane, vibrations take place, and are transmitted by the chain of bones to the labyrinth and auditory nerves. Now if the membrane is thickened, perforated, or destroyed, hearing is more or less impaired, owing to the want of a vibrating surface for the reception of the waves of sound.

The ordinary drum is composed of a thin piece of flat round rubber, pierced in the centre with a small wire pin, which is riveted on both sides to prevent slipping; the rubber is cut with scissors to fit, and is introduced by the wire pin to its proper position. The objections to this drum are—it is made of rubber, which, owing to its elasticity, is not a good vibrating substance, is much thicker than the natural drum, is perforated in the centre with a wire pin which often pulls out, and is not tense enough. All of these imperfections have been overcome in the drum I have constructed. It has a thin piece of gold-beater's-skin for the membrane, which is about the thickness of the natural membrane, stretched tightly over a ring of silver; the pin by which it is inserted is firmly attached to the *side* of the ring, and does not in any way interfere with sound or prevent vibration. I took a small silver wire, about five inches in length, such as is sold for sutures, bent it around the end of an ear-speculum, making a single knot, and twisted the two ends together at right angles to the ring for the pin. After fitting the ring, which was made oval to suit the meatus where the drum rests, I wetted the gold-beater's-skin, stretched it tightly over the ring and tied it with fine silk, which when dry was sufficiently tense.

I here give a sketch of the drum as it should be made by an instrument-maker, which consists of a thin ring of silver; E, over which the gold-beater's-skin is stretched; C represents a small rim of silver which fits over the ring and secures the skin; D, the pin by which it is introduced is fastened to the side of the ring, and can be bent in any form to suit the curve of the meatus and facilitate introduction. By having the frames of different sizes it is easy for the surgeon to select one to suit, and stretch the gold-beater's-skin over it, or the size may be accurately taken with a piece of silver wire as explained above, and sent to the instrument maker, who will shape a frame, and adjust the gold-beater's skin.



263 West 52d St.

Progress of Medical Science.

Hemorrhagic Infarction of the Lungs.—Dr. Gerald F. Yeo, of Dublin, recently read a paper on the anatomical changes found in the lungs in cases of cardiac hemoptysis, where the lesion was formerly described by Laennec, as pulmonary apoplexy, but for which the name hemorrhagic infarction has more recently been substituted. A few days after their appearance the lesions appear as isolated spots of intense engorgement, in diameter varying from one to ten centimetres, and scattered through the lungs in irregular positions, as many as three or four being frequently found. They are extremely hard, almost quite black, and perfectly airless, one of their most striking characters being their sharp demarcation from the surrounding lung tissue, which remains healthy and retracts so as to allow the hard nodules to stand out prominently. These are very constantly conical in shape, the apex of the cone being directed towards the root of the lung, and the base towards the surface, where it shows as a circular knob. Their section is finely granular and even, the vessels in the cone enter it at its apex, and are always plugged with adherent fibrinous clots. The bronchi are empty, or contain bloody mucus. The clinical history is often obscure; sudden local pain, with dyspnœa, followed, in a few hours by more or less profuse hemorrhage, with the the existence of old heart disease, are the chief indications that the infarction has taken place.

The area of condensation is commonly too small, and its position too variable to produce any very characteristic physical signs. The common explanation given since the time of Laennec, was that the hemorrhage was due to rupture of the pulmonary capillaries by means of an abnormally strong right heart. Virchow showed that a free body or embolus in the circulation must become impacted in some vessel, and there set up changes which depend on the character of the substance, the freedom of arterial anastomosis, and the efficiency of the venous valves of the part.

Simple œdema, inflammation, gangrene, abscess, atrophy, and not uncommonly infarction, simple or hemorrhagic, followed the occlusion of a vessel by such a plug.

Cohnheim confirmed Virchow's theory, and described the various steps in the process, as seen under the microscope, to be successively dilatation of the vessels; to-and-fro movements in the blood; œdema and emigration; hemorrhage; and finally stasis. The emboli causing infarction in heart disease are readily supplied from the little clots so commonly formed where the blood current is retarded among the trabeculæ in a dilated right ventricle, or in the auricular appendix. Dr. Yeo also mentioned disease of the pulmonary vessels and hypertrophy of the right side of the heart, as influencing the amount of hemorrhage. The changes in the right heart are usually secondary to disease in the left, and in the transmission of the injury back through the lungs the vessels must suffer. One or both these are essential to the extensive hemorrhage which proves so often fatal. According to Dr. Yeo, the probable chronological sequence of events might be thus enumerated: 1. Prolonged impediment to pulmonary circulation. 2. Injury to the pulmonary vessels. 3. Dilatation and hypertrophy of right heart. 4. Production of cardiac thrombi. 5. Separation of portion of clot. 6. Impaction of embolus in pulmonary artery. 7. Infarction, with more or less bleeding.—*Irish Hosp. Gazette*, March 1, 1875.

Axioms on Lithotrity.—Dr. Ivánchich, of Vienna, has published a list of 234 cases in which he has practised lithotrity, and he now lays down certain axioms for the guidance of the operator, though he states that these axioms are merely repetitions of those that he published more than thirty years ago, when his views were based on only a few dozen cases. They may be stated in brief as follows:

1. Lithotripsy before the twelfth year is only exceptionally and very rarely indicated. 2. Sex as sex is no contraindication to it. He adds, that in girls under twelve years, the operation offers rather better results than in boys. 3. From the twelfth year on to old age the chances of a successful result increase continuously until old age. In general, lithotripsy has a decided advantage over lithotomy. Crushing should always be regarded as the general method, and cutting the exceptional one. 4. While organic and functional integrity of the genito-urinary organs gives hopes of a successful issue in lithotripsy, yet a very marked deviation from this condition is not an absolute contraindication. Phymosis is relieved by division or circumcision; strictures of the urethra by appropriate preliminary procedures; hypertrophy of the prostate, especially of its middle lobe, often presents a fatal barrier, but it is often not insurmountable. The spontaneous discharge of the fragments, which is hindered by this latter condition or by paralysis of the bladder, can be compensated for by their artificial extraction. Symptomatic or intensive catarrh of the bladder, whether the urine be acid, alkaline, or neutral, has of itself but little influence on the question of this operation. On the other hand, increased sensibility of the urinary passages is a matter of great moment in lithotripsy. The introduction of anæsthetics has, however, caused this latter condition to be no longer a contraindication to the operation. Profound organic lesions of the kidneys, ureters and bladder, when they can be diagnosticated, are a bar to lithotripsy, but they also make the issue of lithotomy questionable. 5. Lithotrity is favorable for one or more stones, when they are not larger than a walnut, and especially when they are not very hard. The chemical composition of such stones has little to do with the question, even if the stone be oxalate of lime. But stones the size of a hen's egg, even when they are hard, are not always refractory to lithotripsy. In this connection the author alludes to case No. 20 in his list, where two uric acid calculi, weighing together somewhat over four ounces, English measure, were successfully removed at fifteen sittings. Yet the size of the stone, especially when added to other complications, is often a contraindication to the operation. Such cases will always give rise to the most delicate questions, and the solution of them will depend on the penetration of the surgeon. Stones that rest in diverticles of the bladder, and those which are lodged in the neck and cannot readily be pushed back into the bladder, must be removed by lithotomy, as must all calculi that have voluminous non-friable bodies as nuclei. 6. In conclusion, it is stated that invariable determinate indications and contraindications for lithotrity cannot be laid down on paper, and that in doubtful cases it will depend on the practical tact of the surgeon to decide whether the operation is to be done at all, and which one, or whether merely a palliative procedure is to be adopted. The result of the operation will often be the only means of deciding whether the indication has been rightly or wrongly interpreted.—*Allg. Wien. Med. Ztg.*, 1, 1875.

The Etiology of Puerperal Fever.—Dr. Robert E. Huntley, of Jarrow-on-Tyne, in an interesting article on the above subject, makes the following remarks. It is of vital import that the obstetrician should recognize at the very earliest stage the true character of the malady; and the points to which, in his opinion, attention ought to be directed, are the various causes from which puerperal fevers originate. These may be divided into three classes.

1. Those originating in the patient, as general ill health giving rise to inflammation of the uterine and peritoneal structures, or such as spring from intrauterine causes, putrescence of the infant, or of the other contents of the uterus.

2. Such as spring from atmospheric influences, and give rise under ordinary circumstances to fevers, as scarlatina, typhoid, and typhus.

3. That lamentable and malignant form mysteriously communicated by the accoucheur.—*British Medical Journal*, Feb. 27, 1875.

The Endemic Fever of Jerusalem, and its Etiology.—Dr. Loudon, during an eight years' stay in Palestine, in a professional capacity, had a good opportunity of observing the diseases of that region. He states that the prevailing disease at all seasons of the year in Jerusalem is fever of the varieties intermittent, remittent, and pernicious. He attributes their occurrence to the cistern-water in common use. This is collected principally in the winter, and in the course of the summer becomes exceedingly foul and full of organic impurities from standing so long in the imperfect and filthy cisterns. To fifty patients suffering from intermittent, he gave quinine in large doses, but at the same time allowed them to drink the ordinary cistern-water. To another fifty he gave no quinine, but simply took pains to have them supplied with drinking-water brought from a well two miles distant from the city. The latter promptly recovered from their intermittent, while the former fifty either did not get rid of it, or had frequent relapses. The cases of fever are much less numerous during winter, when the water is fresh. Dr. Loudon also believes, that the dysentery and cholerine, which likewise prevail, are referable largely to the same cause. He found that these cases were benefited by quinine.—*Report of the Session of the Gesell. der Aerzte zu Wien, in Allg. Med. Cent.-Zeit.*, March 13, 1875.

The so-called Third Dentition.—Dr. Scheff holds the opinion that teeth of this class consist of those that are delayed in their appearance from various causes, which he enumerates as follows:—1. There may be an abnormal formation of bone in the socket of the milk-tooth, thus preventing the extrusion of its successor until an advanced period of life, when the alveola has become atrophied. 2. The tooth-germ may be retarded in its development from insufficient nutrition, a fact which he states may be proved of such teeth by the microscope. 3. The growth of the jaw necessary to afford room for the teeth may be prevented, thus causing too short a dental arch.

These teeth, when extracted from patients in later life, are always the eye-teeth, which is natural, as they come last in the order of succession in second dentition, the first being the central incisors, the second the lateral incisors, then the first molar, and finally, the eye-teeth. The time at which all the teeth appear thus in late life is only when there is a complete atrophy of the alveolar process, and the gum has retracted more and more until it lies immediately upon the jaw. It is noticeable that such teeth are defective, perhaps carious, and never supply the lack of real teeth, but give rise to annoyance and have to be extracted.—*Rundschau*, Feb., 1875.

Ablation of nearly the whole Spleen, with Recovery.—The following case has some interest as an additional instance of those rare cases where a large portion of spleen has been successfully removed, and as showing that the operation may be followed by no apparent injury to the general health:

It is reported by Dr. Elias that a young man of eighteen, during a struggle with some companions, was cut in the left hypochondrium in such a way that the spleen protruded through the wound. He ran a mile to the police station, and when received into the hospital was so exhausted that no successful attempts at reduction could be made for four days, and by this time the organ was quite strangulated by the adhesive inflammation which had been set up. He had a pulse of 112 to 120, no appetite, a coated tongue, and some headache. His skin was cool. There was no pain except at the wound, the extent of which was 3½ by 1½ inches. The hilus of the organ could be felt by the finger in the wound. All other operative interference, although strongly indicated, was precluded by the commencement of putrefaction, and a ligature was put around the protruding part close to the thorax, while disinfectants were applied to the injured parts. At the end of three days, as there was fear of purulent absorption, almost the whole organ was removed by the knife, care being taken to avoid the large vessels. A small portion remaining in the wound sloughed off the next day. After suppuration, lasting for from 20 to 25 days, the wound cicatrized. The general condition of the patient improved vastly during his stay in the hospital, and he gained in color, strength, and weight, while all his bodily functions appeared to be well performed.—*Gaz. Méd. d'Orient.*—*Allg. Med. Central-Ztg.*, March 23, 1875.

Atropia an Antagonist of Jaborandi.—Drs. Sydney Ringer and Gould having discovered that atropia arrests the salivation and diaphoresis produced by jaborandi, a fact which Vulpian has also observed, the latter has performed experiments to see if atropia has also a similar effect on other secretions increased by jaborandi. He first demonstrated in a very clever manner by means of canulæ introduced into the canal of Wirsung, ductus choledochus and the ureter, in dogs that were curarized and subjected to artificial respiration, that the pancreatic, biliary and urinary secretions were increased to a very notable degree by the injection of an infusion of jaborandi leaves into the crural vein in the direction towards the heart; he then observed that the pancreatic secretion was completely arrested a few minutes after the injection of one-third to one-half of a grain of atropia in an aqueous solution.

The biliary and urinary secretions were diminished considerably under the same conditions, but they did not stop altogether. In one of his experiments, where the stomach was opened before the injection of jaborandi (an infusion of a little less than a drachm of the leaves to the ounce of water) he saw a certain quantity of fluid flow from the mucous membrane of the stomach; after observing the fact he shortly afterwards injected a similar infusion of jaborandi, but followed it by an injection of one-third to one-half a grain of atropia, and the appearance already noted did not then take place.—*Gaz. Hebdom.*, 12, 1875.

Variations in the seat of Metastatic Abscesses in Purulent Affections.—M. Desprès presented his views on this subject before the Academy of Medicine in Paris, at a recent meeting. He based his conclusions on thirty-four cases which he had observed, and in which there had been three cures and thirty autopsies. He stated that metastatic abscesses do not occupy the same organs with regularity. In purulent infection it is as in constitutional syphilis, the lesions have points of predilection, and these vary according to the temperament and habits of the affected persons; he lays down the following three laws:

1. Pulmonary metastasis is the normal law in acute purulent infections in normal cases. Whenever the inflammation or wound that causes infection affects the vessels of the general circulation, metastatic abscesses occupy the lung.

2. Pyæmia, following lesions that affect the venous system of the liver, engenders, normally, metastatic abscesses of the liver.

3. In patients who have suffered from disease previously, or are following a course of life that permits of permanent changes in an organ, metastatic abscesses will have their seat in this organ as well as in the lung. Thus we see metastatic abscesses in the liver in persons addicted to alcoholism, and in the spleen in those who have had intermittent fever.—*Gaz. Méd. de Paris*, 14, 1875.

A New Point in the Diagnosis of Ovarian Disease.—At the Pathological Society, March 16th, Mr. Spencer Wells mentioned a very striking fact in illustration of the practical use of the treatment and prognosis of disease. He has long taught that single cysts near the ovary may be truly ovarian (excessive growth of one Graafian follicle) or extra-ovarian (dilatation and growth of part of the remnants of the Wolffian body, or parovarium), and he has found that, while the extra-ovarian cysts are often radically cured by a single tapping, the cyst contracting and never refilling, the true ovarian single cysts are almost certain to fill again. He had also shown that the contents of the parovarian cysts consisted of little more than pure water, with scarcely any albumen, or only a little albuminate of soda, the specific gravity seldom exceeding 1.005. Mr. Thornton has recently discovered that the fluid in some single ovarian cysts contains little groups of cells, which he believes are only formed from the lining membrane of the Graafian follicle; and the presence of these cells, with the higher specific gravity and the albumen or paralbumen in the fluid, are sufficient to enable the surgeon to say after tapping a single cyst, whether it is likely to be radically cured by tapping only, or whether it is almost certain to refill and regain ovariotomy.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE CHEAPNESS OF MEDICAL CERTIFICATES.

It is often a matter of surprise to us to see how ready medical men are to append their names to all sorts of certificates. In the majority of instances this may be explained by a desire to gratify a vanity which certain individuals have in being considered men of reputation and influence, and is one of the ways of covertly advertising themselves in that capacity. In other instances it is the want of the appreciation of the true value of a good name. There are very few of the profession who are not numbered in one or two of these classes. The consequence is, that there is hardly a contrivance or medicinal preparation offered for sale the advertisement for which is not paraded with an appendage of certificates of distinguished men. But we do not stop here. If there is any new washing apparatus, sewing machine, patent ventilator, new whiskey, or, in fact, anything that may, directly or indirectly, have any influence upon the health, the parties interested have no difficulty in getting the signatures of all the "eminent medical men" they may want.

It is very much the same thing with certificates of character. If a young medical man desires a position, either in a hospital, health board, or dispensary, he knows just the prominent medical men upon whom he can call for a good recommendation, and he is never disappointed. In fact, these certificate writers seem to have a set form of indorsement, from which they seldom, if ever, vary; and while they say their best for the meanest applicant, they can do no more for the best. In the matter of recommendations for nurses the same thing is done: a great many of the gentlemen who give these certificates either know little or nothing of the persons they indorse, or else they look upon the affair as a matter of form, with which they often stretch their consciences in complying. The consequence is, that medical certificates have a very indifferent value, as very few have any weight whatever. A prominent politician, in canvassing the respective merits of a number of physicians who applied for a medico-political appointment, remarked, that of twenty-five of these applicants, almost all had the same signatures to their appeals, certifying to first-class attainments. He very properly remarked, that all the gentlemen evidently stood so high in their profession that it was impossible to make any choice. It is not fair to assume that the habitual signers of medical certificates are, in the main, actuated by any other than good motives; but we must, nevertheless, admit that their names are fast becoming such cheap commodities, that they will ere long be quoted below even their strictly market value.

Outsiders whose business it is to trade on other men's good name, are not slow to take advantage of this state of affairs. Assuming on general principles that medical men are indifferent upon the subject, they lose no opportunity of turning this indifference to their account. We know of not a few good men who have been inveigled into a tacit approval of some invention or scheme, whose names have been paraded to the public in the most barefaced and defiant manner, and that, too, with no power, seemingly, to prevent it. It is true these gentlemen never dreamed that they were doing anything more than writing a friendly note, in acknowledgment of a present, perhaps, or in recommending an inventor to a professional brother, or the like; but they have since learned that too much care cannot be exercised even in these apparently innocent offices. We believe that these men are heartily sorry for what they have done; but this sorrow can hardly counterbalance the reasonable interpretation of their motives by their professional brethren. We know of one gentleman, whose name, on the slight excuse of a few lines of very equivocal indorsement of a new hygienic scheme, has his name, with all his titles attached, paraded in one of the most public of thoroughfares; while another had a letter of his actually autographed and published broadcast over the country. There are very many similar instances which have come to our knowledge, that prove not only that medical recommendations are quite cheap, but that those who obtain them are by no means scrupulous in their use of them. The conclusion to be drawn from this is, that too much care cannot be exercised in signing anything that may be presented to us, no matter who the individual may be who asks for such a service. If our names are to become the trade-marks for some enterprising manufactory, or some covert quack, we had better sell ourselves out at once and retire.

Pursuing the subject still further, we find that it is fast becoming the fashion to use the names of prominent medical men to endorse nostrums, questionable treatises, etc., without going through with the usual formality of even asking permission. This is now so extensively done to our personal knowledge that it is time to call attention to the fact that, those of our brethren who may not know how or why it is done should exercise a reasonable charity towards the victims. Not long ago we had placed in our hands a pamphlet which, on its face, was an advertisement for the most shameful kind of quackery, upon the fly-leaves of which were the names of some of the most prominent of our medical men as indorsers, not only to the outrageous doctrines therein contained, but to the preposterous method of treatment advocated. It is absurd to suppose that any of these gentlemen ever saw the writer, or ever heard of his little book. Still, this is done every little while; but because the practice is carried on without the knowledge of the parties interested in the misrepresentation, it should not the less be entitled to a charitable interpretation by the profession.

Reviews and Notices of Books.

CROUP IN ITS RELATIONS TO TRACHEOTOMY. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College. Philadelphia: Lindsay & Blakiston, 1874.

"WOULD that more such books were published," was our sincere wish on finishing the attentive perusal, we may say study, of the work the title of which heads this article. It is a book of only 78 pages, and what most people call not an original book; yet, in our deliberate judgment, the whole medical profession owe Dr. Cohen a debt of gratitude for it which can only be paid by each member doing his part toward making it known to every other member. It contains a conscientious compilation and judicious appreciation of all that could be gathered by the author upon the subject of which it treats; and, so far as knowledge of a practical subject can be acquired by reading, whoever chooses to make these comparatively few pages his own will become *thoroughly posted.*

If we had had the making of the title, we would have put it, Tracheotomy in its relations to Croup, for the operation is the chief subject of the essay, but this is perhaps hypercriticism; at all events it is of small importance, as the contents of the book respond closely enough to the title it bears.

After a few introductory remarks, Dr. Cohen tells us that tracheotomy for croup is generally regarded with much disfavor in Philadelphia. "Its results in Philadelphia have been less encouraging than almost anywhere else; probably because, as a rule, the operation is postponed too long; possibly because our medicinal treatment of croup cures a number of cases which, under less efficient management, would become subjects for tracheotomy: but whatever the cause, the results, in a comparatively few instances in which the operation has been performed, have been so disheartening, that many practitioners refuse to sanction tracheotomy in croup under any circumstances. This radical feeling is wrong. Not only should our individual experience be utilized in judgment, but the recorded experience of others also. Early failures may be followed by ultimate successes."

Some statistics are given to illustrate the last point; and the author continues, "That tracheotomy saves many croup-patients from death otherwise inevitable, and that, too, even under favorable circumstances, there has long been no reason to doubt. There is little doubt, either, that patients are occasionally tracheotomized unnecessarily, but the proportionately small number of such instances, whether errors of judgment or errors of prudence, is in all probability insignificant in comparison with the number of patients saved by the operation from certain death—life being preserved in the one instance, while it is not sacrificed in the other." . . . .

"But how are we to estimate the percentage of recoveries in desperate cases without tracheotomy? how estimate the percentage that die for want of tracheotomy? how estimate the number of awkward tracheotomies? how estimate the number of deaths due to the operation itself, or to untoward circumstances which follow it? how estimate the number operated upon when half dead, or in articulo mortis? how separate the causes of death after tracheotomy, whether incident to the disease, to previous exhaustive treatment, to the operation itself, to inefficient after-treatment of the wound or of the disease?"

Statistics of the operation—more than 5,000 cases—are then given from French, Germanic, British, and American sources. The author recognizes that the age of the patient has an important influence on the success of tracheotomy for croup. Very few children under two years are saved; very few over eight or nine, and adults seldom or never. Then, selecting the best individual series of statistics from those already given, a table of results is obtained in remarkable contrast with the entire list. Of this table Dr. Cohen says: "Many fortuitous circumstances may have been combined in these instances to favor better results than have been obtained in other series of operations. A favorable age in the patient, a good selection of cases, a happy recognition of the proper moment for surgical interference, skilful operation, and assiduous after-treatment may have been the causes leading to such excellent results. These are the elements of success; and it is, in a measure, to assist in a better appreciation of these elements of success that the paper has been compiled."

The following main topics are then discussed in succession: I. The indications for the operation. II. The points of importance in connection with the operation itself. III. The after-treatment of the disease and of the surgical wound; and IV. The casualties which prevent recovery. We cannot follow the author in the detailed discussion of these topics, but trust that our readers will procure his book and do so. We desire, however, to call Dr. Cohen's attention to two or three points that he might take into consideration when preparing a second edition, which, we hope, will soon be called for. The directions he gives for making the incision into the trachea leave nothing to be desired; but the possibility of one accident is not alluded to, viz., that of not including the mucous membrane of the front wall in the incision. He cautions the operator against carrying the knife too far, so as to wound the posterior wall, or make a counter-opening into the œsophagus. He also says: "Another untoward complication may arise, in cases where false membrane is present in the path of the knife, by pushing it over against the posterior wall of the trachea;" and mentions that in a number of instances where false membrane existed upon the front wall, the point of the knife did not penetrate the false membrane, but merely loosened it and pressed it backward, occluding the tube, and in this way rendering suffocation imminent; but a case has occurred under our own observation in which the operator, supposing that he had reached the interior of the trachea (especially as air bubbled and whistled through the wound), introduced the canula, pushing uncut mucous membrane before it, and tearing it from its connection. Secondly, neither in speaking of the different kinds of canula, nor in speaking of the causes of hemorrhage which may occur after the operation, does the author call attention to the danger from fenestrated tubes. Dr. Sayre reported a case to the New York State Medical Society in 1864, in which death was caused by sloughing of the wall of a vein lying on the sharp edges of the openings; and a number of more or less similar cases have occurred in which soft parts bulged into both fenestra, and the intruding portion has been cut off by the removal or reinsertion of the inner tube. Thirdly, he omits mention of the valuable Roser after-treatment canula, which is made on the principle of the wire vaginal speculum for baths.

We reproduce the conclusions which the author himself draws at the end, viz.: I. That there are no insuperable contraindications to tracheotomy in croup. II. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation; but that it should be used with great caution. III. That a careful dissection should be made down to the windpipe, and hemorrhage be arrested before incising it, whenever there is at all time to do so. IV. That the incision should be made into the trachea as near the cricoid cartilage as possible, to avoid excessive hemorrhage, and subsequent accidents which might occasion emphysema. V. That a dilator should be used, or a piece of the trachea be excised, whenever any difficulty is encountered in introducing the tube. VI. That the tube should be dispensed with as soon as possible, or altogether if the case will admit of it. VII. That assiduous attention should be bestowed upon the after-treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation.

OUTLINES OF THE SCIENCE AND PRACTICE OF MEDICINE. By WILLIAM AITKEN, M.D., F.R.S., Professor of Pathology in the Army Medical School; corresponding member of the Royal Imperial Society of Physicians of Vienna, etc., etc., etc. London: Charles Griffin and Company, 10 Stationers' Hall Court. Philadelphia: J. B. Lippincott & Co. 1874.

THIS book contains 580 pages of reading matter, and is merely a compendium of the author's work upon the Science and Practice of Medicine. It simply embraces what the author believes to be essential to make it a book of reference for the general practitioner, if he is disposed to consult such abridged works, but it is more especially designed for the use of students. The book, therefore, contains definitions, a method for examining patients, a classification and general outline of a large number of diseases.

There is one very disagreeable feature in the work, and that is, the references to the author's treatise upon the Science and Practice of Medicine are so numerous that, if the student desires to fully understand the meaning of the writer, it becomes necessary to purchase both. This grows out of the fact that when a reference is made, it is, in many instances, in lieu of a few words in continuation of the subject under notice, which would avoid the necessity for any reference whatever.

For example, on p. 32 the writer says that "one of the most important results of the existence of inflammation is the material change that occurs in conditions for healthy nutrition of the affected part; and for *details regarding these altered conditions* the reader is referred to the Science and Practice of Medicine," etc.

It is the "details on the altered conditions" referred to by the author that make up the essential and most interesting part of the discussion, and just as the reader is reaching forward in anticipation of something that shall shed some new light, or at least let in the light of the author's own opinion upon the question, he is confronted by a reference to a ponderous work not at hand. In this respect, the book might be materially improved, and made more complete without increasing its size to any great extent.

Notwithstanding this disagreeable feature, the book contains much that will aid the student in the pursuit of his studies. The second chapter is worthy of his special attention, for in it is a key to success as a medical practitioner. It is devoted to what the author calls "case-taking," and methodical examination of patients.

"If," says the writer, "the attempts of a beginner are watched, who sets about the examination of a patient without any definite method, it will be seen that he wanders in his inquiries from one part of the body to another. He asks pointless and fruitless questions, and finally jumps at hasty conclusions, which are generally erroneous."

These remarks, however, need not be restricted to the new beginner, for many a poor fellow, who claims to be a worthy practitioner, has found himself in an awkward position, simply because he has not been sufficiently thorough in examining his patient. Such may learn that there is no safer method of making a thorough examination than by closely adhering to some system in conducting it. In this respect, therefore, the book may be studied with profit by many who have become graduates in medicine.

ERYSIPELAS AND CHILDBED FEVER. By THOS. C. MINOR, M.D. Cincinnati: Robert Clarke & Co. 1874.

IN this monograph of 130 pages the author first gives an historical outline of erysipelas and childbed fever, showing the opinions of various authors regarding the connection of the two diseases and their contagious properties; followed by a study of both affections as they prevailed sporadically in the United States during the "census year, 1870;" and last of all, an account of the diseases as they have appeared in Hamilton county, for the past eight years, with the history of a puerperal-fever epidemic observed in south-western Ohio, in the winter of 1872.

The statistics of the mortality from erysipelas and puerperal fever in the different States and Territories, for the year 1870, are carefully arranged by the author into tables, showing the number of fatal cases in each State in every month; the annual mean temperature and rainfall is also noted, with the population of each State.

Able generalizations are drawn from a minute and careful study of these tables; and in the "recapitulation," the author states that he has fully described the 3,162 fatal cases of erysipelas, and the 1,828 cases of puerperal fever which occurred in the United States in 1870, although no general epidemic of either disease seems to have prevailed. The nativity of the decedents from both diseases is given, and a table showing that more men than women die of erysipelas; and that the months of greatest mortality from erysipelas were March and April, while the most deaths from puerperal fever occurred in March. Under the head of "The Relation of Climate to the two Diseases," Dr. Minor concludes that altitude rather favors the development of any erysipelatous tendency that may exist, while it tends to diminish the tendency toward puerperal fever. Both diseases prevail also whether the season is wet or dry. A tabular statement giving the age of the decedents from erysipelas shows that infancy and old age are the periods of life when the human being is most apt to become the victim of that disease; while the most deaths from puerperal fever are recorded between the ages of 20 and 25 years. The author concludes his valuable collection of statistics of the two diseases by asking the question, "Is there a connection between erysipelas and puerperal fever?" which he attempts to answer in the following propositions:—1. Erysipelas and puerperal fever seem to prevail together throughout all the States. 2. Any marked increase in one locality of one disease, seems to be accompanied by a corresponding increase of the other. 3. Where histories of past epidemics of either disease are obtainable from any of the States, the seeming connection of the two diseases was noticed by physicians at the time of such epidemics, and remarked on. 4. For these reasons we are, I think, justified in concluding that there is an intimate connection existing between puerperal fever and erysipelas. As a rule, the book is written in a clear and concise way, although we note several specimens of a florid style of writing which we think unbecoming in a medical work, of which the following, on page 53, is an example. "Florida—that beautiful land, where the eternal kiss of a summer's balmiest sunshine lingers on the lips of a warm, tropical nature, scented with the breath of incense-breathing exotics, musical with the tintinnabulations of richly-plumaged warblers. Land of lazy, tremulous languors, where the weary invalid convalesces while dreaming the time away in a delicious 'dolce far niente' state!" etc.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 24, 1875.

DR. F. DELAFIELD in the Chair.

DR. JANEWAY reported, on behalf of the Microscopical Committee, that the specimen presented by Dr. Kipp, at the last meeting, was one of carcinoma.

A VICTIM OF ABORTION.

DR. FINNELL presented the uterus and appendages taken from a woman who had been the victim of abortion. She was twenty-four years of age. After missing two menstrual periods, and on the eve of the third, she determined upon having an abortion produced. After the operation was performed she returned to her residence, and the day following was seized with a chill. She died in the course of ten days afterwards with metro-peritonitis.

Dr. McWhinnie, deputy-coroner, made the post-mortem, Dr. Finnell assisting. In the right ovary was a corpus luteum three months old; it was eight lines in length, four in breadth, and contained a characteristic clot. The opposite ovary contained a cyst the size of a small orange, in which was a quantity of bloody serum. The uterus itself was smooth, polished, and unchanged in appearance. There was no redness in the interior, save in the site of the detachment of the placenta. A slight depression in the side of the neck of the uterus, merely involving the mucous membrane, showed that the instrument used was probably a catheter or large-sized probe. The peritoneal cavity contained over a pint of sero-purulent fluid.

UTERINE POLYPUS—PERSISTENT UTERINE HEMORRHAGE.

DR. SELL showed a small uterine polypus which contained over a pint of sero-purulent fluid he had removed from a lady who, for three years previously, had been subject to persistent uterine hemorrhages. On digital examination the tumor was found protruding through the cervix, was pedunculated, and was removed without trouble by torsion. The effects following the operation were marked and decided, the patient having had no more unnatural sanguineous discharges.

MULTIPLE EXOSTOSIS.

DR. GIBNEY presented a living specimen, a boy aged thirteen years, who was the subject of rather remarkable exostoses. The patient came under Dr. G.'s notice on the 15th of March last, to be examined for hip-joint disease. On examination none of the symptoms of this disease were observed, but at the upper end of each tibia, at the proximal extremity of each humerus, were well-marked exostoses; also one around the left index finger, very much in the form of a ring.

The patient had been healthy up to his sixth year, when he had a severe attack of scarlet fever, with attendant nephritis. Within a year afterwards he was attacked with what seemed to be acute rheumatism, which confined him to his bed for a long time. Three years ago he began to complain of pain in his right hip, which symptom subsided after two or three weeks, to return within two or three months. He then had perfect immunity from pain until October, when it reappeared in the hip, and appeared to be aggravated after sitting a while. Dr. Janeway, who saw the case, suggested that some of those bony growths were also in the neighborhood of the hip-joint, giving rise to the symptoms complained of.

DR. JANEWAY remarked that he had recently seen a case in a young man, aged eighteen years, but in which the exostosis was a single one, and was situated on the inner condyle of the right femur.

POTT'S DISEASE OF THE SPINE CAUSING REFLECTED IRRITATION AND DISEASE OF GENITO-URINARY APPARATUS.

DR. F. N. OTIS presented a specimen of caries of the spine with the following history: A gentleman sent for me to see him, four years ago last summer, at Lake George. He had been a subject of hip-joint disease in his youth, and he was then forty years of age. For the previous fifteen years he had been what might be almost considered an athlete, having cultivated his muscular power to a very remarkable extent notwithstanding his lameness. He had been rowing a certain day, as was his custom, for several hours, when he was somewhat suddenly taken with a desire to pass water, and this continued at intervals of half an hour to an hour for several days, at the end of which time I was sent for. The urine was normal in appearance, with no deposit, and there was some straining after micturition. Upon examination of the bladder nothing was found to account for the symptoms. The difficulty of urinating continued without cessation for two years, except when temporarily relieved by the administration of narcotics. At this latter time he had come to have a considerable amount of catarrhal inflammation of the bladder, which had come on very gradually. He had never had any gonorrhœa, nor any other disease of the genito-urinary apparatus. At the time referred to he was seen in consultation by Dr. Markoe. The patient had some occasional discharges of blood after micturition, after which discharges he would have relief from the pain which preceded these attacks. Having considerable catarrhal trouble, and some considerable pus in the urine, it was thought probable that he had stone in the bladder. He was put under the influence of ether, and examined for stone, but with negative results. His difficulty then went on increasing, and having found a very large quantity of calcareous matter, the idea of calculous disease was confirmed, and the supposition entertained that possibly the stone was enclosed in a pouch of the bladder. The case went on for another year with very little change. He was treated by different narcotics and sedatives in order to relieve the great irritation, which not only was felt in his frequent urination but which extended throughout the urethral canal.

About the third year of his trouble Dr. Van Buren saw him with me, and at first the doctor was of the opinion that he had stone, but this opinion was not confirmed, and still his symptoms went on. The spasm at the neck of the bladder was then terrific, and would occur as often as every ten minutes. His life seemed to be one prolonged torture. Sometimes he would have an interval of a half an hour of freedom from pain, but these intervals were by no means frequent.

Two years ago, three years after the commencement of his trouble, making occasional examinations of the urine I found that there was more or less epithelial matter from the ureters and from the pelvis of the kidney, and I urged an operation for the stone which I supposed to be present. Believing this to be the only method by which his life might be prolonged, Drs. Van Buren, Gouley, and Markoe were called in consultation, and it was decided, although there was very great doubt as to the presence of stone, still it was absolutely necessary that the irritation be stopped in some way or grave and fatal kidney disease would result. It was determined to relieve the cystitis in any event by local treatment, and in order to do this he was cut for stone. The median operation was accordingly performed upon him by Dr. Gouley, in the presence of Drs. Van Buren, Markoe, and myself. After this operation he improved somewhat. I should say no stone was found, much to our disappointment. Although he did well for several months, he failed to regain comfortable health. For about a year, notwithstanding he went through what in any one else might be considered great suffering, he was comparatively comfortable. He came down last autumn, and on arriving at home I was sent for to see him. I found him exceedingly comfortable. He had complete relief from his bladder trouble, and was only passing his water once every three or four hours. This seemed very strange to me. His wife mentioned at the time in a very casual way that she thought he had an extra lump in his back. He assured me, however, that it had existed for a very long time. I found, on examination, about the region of the seventh or eighth dorsal vertebra, a distinct projection, and it seemed to me that it was evidently Pott's disease of the spine. He had previously complained of a great deal of pain in the back, but it had been located in the region of the kidney, and was supposed to be connected with his general trouble. I sent at once for Dr. Van Buren, and he agreed with me fully in regard to the presence of spinal trouble, and it was decided to place him under the care of Dr. Chas. F. Taylor. Dr. Taylor then became connected with the case, and was decidedly of the opinion that it was one for treatment by his method of support, and applied an instrument which he adapted to the spine. This treatment was continued for some months; but he became very restless and uneasy, and his trouble in urination came back. At the time this trouble left him the pain which he experienced lower down became localized just above the hips in a plane with their top. He was finally put upon a water-bed, but after a month more of trial with the instrument it was found impossible to wear it. Just about that time a diarrhœa came on, was very profuse and obstinate for a week, and ceased apparently of its own accord. Then his bladder trouble increased again and was attended with severe spasmodic pains during micturition, which pains were mostly situated at the neck of the bladder and at the end of the penis. Within two or three days before his death he very accidentally obtained instant relief to the pains by the application of snow to the end of the penis. He died two weeks ago, apparently from a uræmic convulsion.

A post-mortem examination revealed first a half pint of laudable-looking pus in the cavity of the peritonæum, which pus was found connected, underneath the sheath of the psoas muscle, with two abscesses located upon the left side of the spine, in the neighborhood of the eighth dorsal vertebra, at which situation the posterior surface of the left lung was adherent. This condition explained a very distressing cough from which he suffered during the last few months of his life. The right kidney was found to be the seat of a cystic degeneration. There was no dilatation of the ureter between the kidney and bladder, and no obstruction in the ureter. The left kidney was three or four times larger than the right, was the seat of waxy degeneration, and the subject of pyonephritis to a very considerable extent. A large portion of the kidney was involved in ulceration, and there was a collection of purulent material which extended more or less throughout the calices. The bladder was thickened and contracted, but there was no evidence of any ulcerative trouble. There was no stone in the bladder, but there was an admirable cul de-sac to conceal one. One testicle was atrophied, the other considerably enlarged, and in its inferior portion was the seat of a disease the gross appearances of which were quite characteristic of tuberculous disease.

Dr. Otis, in concluding his remarks upon the case, thought that he had good reasons for referring the genito-urinary troubles to reflected irritation from the disease in the spine.

Dr. Delafield, to whom the kidneys and testicles had been referred for examination, remarked that they were classical representatives of tuberculous degeneration.

SYPHILITIC BRAIN LESIONS WITHOUT A SYPHILITIC HISTORY.

Dr. Delafield then exhibited two microscopical specimens. The patient to whom they belonged was a Frenchman, æt. 26, who was admitted to the Roosevelt Hospital on the 1st of April, 1874. He strenuously denied having had venereal disease. About a year and a half before he was struck in the left testicle, and suffered from more or less inflammation of the part for six months. Since that time his urine had been scanty and was frequently passed. When admitted, his left scrotum was filled with a small glandular tumor. On the 6th of April it was discovered that he passed blood and pus in his urine, and by rectal examination it was likewise ascertained that the right side of the prostate gland was enlarged. There was some difference of opinion in regard to the nature of the tumor of the testicle, some of the surgeons believing it to be syphilitic in character, and others scrofulous.

On the 3d of June he was suddenly seized with headache and a good deal of difficulty in speaking. On the 6th of June he lost his speech altogether, and on the 9th of June he commenced to vomit, the following day became comatose, and on the 13th of June he died.

When the autopsy was made it was found that the left kidney was enlarged and far advanced in tuberculous nephritis. The left seminal vesicle, prostate, and left testicle were all in this same cheesy condition. The bladder contained pus, and its mucous membrane was covered with fibrine. The lungs presented the lesions of chronic bronchitis. The brain exhibited very marked lesions. Wherever the dura mater was removed the pia mater was seen to have lost its natural glistening appearance, and was of a very dry and dull appearance. There was a good deal of turbid serum beneath it. Besides, upon the surface of the brain there were numerous points of what seemed to be gummy tumors, collections of gelatinous material beneath the pia mater, and extending into the substance of the brain. Some of these growths were a little cheesy, but most of them were of a gelatinous appearance. They grew from underneath the pia mater down between the convolutions of the brain, and were composed simply of coagulable fibrine, a considerable number of large rounded cells, as in inflammation of the brain, and also small rounded cells such as found in gummy tumors.

Dr. Delafield remarked that this was a case in which there was no syphilitic history, no syphilitic symptoms, and yet the lesions in the brain were exactly those which we are accustomed to find in gummy tumors of that organ. The question would therefore arise in this case whether these tumors might not be of the same nature as those found in the genito-urinary organs. The question was by no means an easy one to answer.

SUDDEN DEATH AFTER LABOR WITHOUT APPARENT LESIONS.

Dr. D. also related the case of a woman who was confined in the Charity Hospital boat. She was delivered at half-past 3 on Tuesday morning. There was nothing abnormal about the labor, and everything progressed favorably, until suddenly, half an hour after the birth of the child, her pulse began to sink, and despite every effort she died within two hours afterwards. At the autopsy nothing abnormal was found, the case resolving itself into one of sudden death without apparent lesions.

The Society then went into Executive Session.

Obituary.

T. BLANCH SMITH, M.D.,

NYACK, N. Y.

DIED at Nyack, Rockland Co., N. Y., on Wednesday, April 14th, T. Blanch Smith, M.D. The doctor was born at Blauveltville in the same county, Nov. 27th, 1835. He attended the district school there, until, at the age of twelve, his parents having changed their residence to New York, he entered the school of Mr. G. P. Quackenbos in that city. In this grammar school he remained until, having chosen for his life-work the practice of medicine, he left the city, and entered the office of Dr. M. C. Hasbrouck, of Middletown, Rockland Co., N. Y. In the year 1852 he attended lectures at the Medical College at Geneva, N. Y., then entered the College of Physicians and Surgeons, New York, and after two full courses, graduated in 1855. Immediately upon graduation he succeeded Dr. Hasbrouck at Middletown, and continued to practice there until June, 1858, when he removed to Tappan, N. Y.

He married Ellen C. Van Orden, of Spring Valley, Dec. 31st, 1855. In the year 1870 he moved to Nyack. He filled, successively, the offices of secretary, treasurer, and president of the Rockland Co. Medical Society.

In Feb., 1873, he was made a permanent member of the Medical Society of the State of New York. He was elected President of the Village of Nyack, March, 1874, and re-elected March, 1875.

Dr. Smith, from the beginning to the end of his professional career, was an earnest student. He did not fall into routine, or content himself with such knowledge as he had easily acquired, but constantly purchased and studied standard books, and sought, by attending occasional lectures and clinics at the colleges in New York, and by frequenting the meetings of learned societies, to keep himself thoroughly informed of every discovery and of every real advance in the science and art to which he was so enthusiastically devoted. It is not saying too much to affirm that there was probably not a more careful student of the indications for and the uses of drugs in the profession in the State. He became a real master in the art of prescribing, and all through the county, where he was best known, this fact will be cheerfully attested by his professional brethren. He was chivalrous in his loyalty to his medical brethren, and did much to aid them, in the society of his county, in the maintenance of that confidence and good order upon which the dignity and usefulness of the profession so largely depend.

The doctor was apprehensive that he would fall a victim to pulmonary or cardiac disease, as there was a marked tendency to the same in his family. Occasionally, moreover, he would break down suddenly in health and then have a small hemoptysis. His worst fears were finally realized in the character of his death. On Monday morning early (April 12th) he was called out suddenly by an alarm of fire in the village, was greatly exposed to cold and wet; was seized that night with severe pain in the chest; had hemoptysis; suffered greatly through Tuesday, and on Wednesday, April 14th, at 10.30 A.M., suddenly died. For some hours before death, there had been dyspnœa with great cyanosis. As there was no autopsy, the immediate cause of death cannot be stated.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 10th to April 17th, 1875.

EDWARDS, L. A., Surgeon.—Granted leave of absence for one month on surgeon's certificate of disability. S. O. 71, Mil. Division of the Atlantic, April 14, 1875.

ROSE, GEO. S., Assistant Surgeon.—Assigned to temporary duty at Madison Barracks, N. Y. S. O. 69, Mil. Division of the Atlantic, April 10, 1875.

ELBREY, F. W., Assistant Surgeon.—To report in person to the Commanding General Department of the South for assignment to duty. S. O. 63, A. G. O., April 10, 1875.

CHERBONNIER, A. V., Medical Store-keeper.—Granted leave of absence for one month. S. O. 63, c. s., A. G. O.

Medical Items and News.

Consanguineous Marriages.—Mr. Geo. H. Darwin, in an exhaustive paper on the marriages of first cousins, and their effects, sums up the results of his investigations as follows: 1. Consanguinity of parents is injurious to the offspring. 2. Where the children seem to escape, the injury may show itself in the grandchildren. 3. In many isolated cases, and even groups of cases, no injurious result can be detected. 4. These unions influence idiocy and imbecility more than the forms of insanity acquired later in life. 5. The frequency of these unions in Scotland (although not so great as supposed) somewhat increases the amount of idiocy there.

Nursing in Norway.—Mr. John Campbell describes, in an English journal, the nursing system in vogue in Norway, and commends its practical nature. "Almost every Norwegian parish has its jordemoder, or professional nurse—a woman educated, as I understand, at a hospital, and who acts under the direction of the doctor of the district, being qualified to attend confinements (where in Norway a doctor is seldom thought necessary), to cup, bleed, etc. On the occasion of a slight contusion, received through a fall, a few summers ago, the doctor whom I consulted advised cupping, and this was done at my inn by the jordemoder."

He suggests that such a class of women would be extremely serviceable among the poor, and says that Sweden and Denmark have organized systems of instruction and supervision of midwives.

The International Medical Congress at Brussels.—The fourth session of the periodical International Congress of Medical Science will commence at Brussels on September 19th, 1875, and will last a week. It will be composed of those native and foreign medical men who send in their names to the Committee, and who alone will have the right of taking part in the discussions. The only expense incurred by members will be 12½ *francs* ($2.38) for a copy of the Report of the Proceedings of the Session. A card of admission will be forwarded with the receipt for this subscription. Applications for admission are to be made on and after July 1st; and members' names will be forwarded and cards of membership distributed on the afternoon of September 18th, and the morning of the 19th. Members must have their names put down in the section to which they desire to belong. A member may belong to several sections. The Congress will meet twice daily; in the morning for the work of the sections, in the afternoon for general meetings, which will be devoted to conferences on questions of general medical interest not included in the programme, and to reading the reports of the sections and discussion of their contents. Members wishing to read papers on any subject not included in the programme must give notice to the Committee at least a month before the opening of the Congress. No one will be allowed to speak more than twenty minutes; this restriction, however, does not extend to the sectional reporters. All papers read at the Congress must be left at the Committe-room for publication at the discretion of the Committee. The proceedings will generally be conducted in the French language, but foreign members will be allowed to express themselves in their native tongue. If wished, the sense of their discourse will be briefly interpreted to the meeting. The Committee consists of M. Vleminckx, President; and MM. Deronbaix, Bellefroid, and Crocq, members; with M. Warlmont, General Secretary, to whom all communications relating to the Congress will be addressed. The programme of the Congress is as follows: 1. *Medicine* (comprising Pathology, Pathological Anatomy, and Therapeutics); the Prophylaxis of Cholera; Alcohol in Therapeutics; the Inoculability of Tubercle. 2. *Surgery* (comprising Military Surgery and Syphilography); on Surgical Anæsthesia, and Dressing of Wounds after Operation. 3. *Obstetrics* (including Diseases of Women and Children); Lying-in Hospitals. 4. *Biological Science* (comprising Anatomy, Physiology, Comparative Medicine); the Vaso-motor Nerves, and their mode of Action; the Value of Experiments based on Artificial Circulation. 5. *Public Medicine* (comprising Hygiene, Forensic Medicine, Medical Statistics); the Means of making Workshops in which Phosphorus may be manipulated without Detriment to Health; the Organization of the Public-Health Service, the Manufacture of Beer. 6. *Ophthalmology:* Defects of Vision in relation to the Military Service. 7. *Otology:* the means of Measuring Hearing and Registering in an uniform manner in all Countries; Defects of Hearing in relation to the Military Service. 8. *Pharmacology:* Should the Medical Employment of chemically defined Principles immediately be extended, and should the Preparations of them be multiplied in the Pharmacopœias? The Establishment of an Universal Pharmacopœia.

The New York Diet Kitchen.—At the recent annual meeting of this charity, at 374 Second Avenue, Mrs. William C. Whitney, Secretary of the Association, read her report, in which she stated that thirty patients were provided with properly prepared food daily. The Board of Apportionment had allowed the kitchen $700, which had been applied to the equipment of another kitchen at No. 438 West Thirty-sixth Street. The design of the managers is to extend the system, so as to have a diet kitchen in every dispensary district, as at first suggested by Dr. C. H. Atwater. The report of the Treasurer, Mrs. W. Langdon Ward, showed a balance on hand of $1,843.82, the total receipts having been $3,364.41.

A Prize for a Thesis on Insanity.—Some of the descendants of William and Samuel Tuke have placed at the disposal of the Medico-Psychological Association the sum of one hundred guineas, which the Association offers as a prize for "the best series of original cases and commentary illustrative of the somatic etiology of various forms of insanity, accompanied, when possible, in fatal cases, by reports of post-mortem examinations and microscopical preparations, their bearing on the symptoms being pointed out.

"Cases not seen by the writer may be cited, but must be distinguished from those actually witnessed by himself."

The prize will be open to all, without restriction as to country, profession, etc., but the right is reserved to withhold it should there be no essay of sufficient merit. Essays to be written in English, and not in the author's handwriting; to be sent with a sealed envelope, having the motto of the essay, and containing the name of the writer, to W. Rhys Williams, Hon. Sec. Bethlehem Royal Hospital, London.

Dr. Horace Dobell was lately the recipient of a vote of thanks, handsomely illuminated on vellum, on his retirement from the post of Physician to the Royal Hospital for Diseases of the Chest, after sixteen years of service. He has also been elected consulting physician to the hospital.

Some of the Effects Produced by Sewer-gas.—Dr. Fergus, of Glasgow, at the meeting of the Birmingham Sanitary Conference, related the results of experiments as to the value of water-trapping as a means of preventing sewer-gas from entering dwelling-houses. The principal object Dr. F. had in view was to show that the few inches of water which, as a rule, are placed as a barrier between the sewers and the interior of houses, and which are dignified with the name of syphon-trap, afford, in reality, no protection against sewer-poisoning. He exhibited at the conference a number of decayed and perforated soil-pipes, the perforations being from within outwards, and being so situated on the upper surface of the pipes that the destruction of lead could not possibly have been caused by any liquids that had passed through them. The pipe which was most frequently so affected was stated to be the cross one, leading from the closet to the main descending soil-pipe; and if there were a bend or arch in the pipe, the upper surface of the bend or arch would become perforated.

Dr. Fergus says, unhesitatingly, that this result is due to the action of sewer-gas, and he supports this view by showing the increased rapidity with which the destructive action takes place, when the soil-pipes are unventilated. In many houses in which diphtheria and typhoid fever had existed, the inmates had complained of offensive odors emanating from the water-closets, and on examination he had found the soil-pipes to be perforated. But what was most striking was the fact that these house soil-pipes were in each case trapped before they entered the drains, and yet the sewer-air was able to get through the trapping and destroy the lead.

As experiments, Dr. Fergus had procured a series of tubes, bent so as to resemble the ordinary so-called syphon-traps, and in the lower curve of each of these tubes water was placed to affect the trapping. Various gases were then admitted without pressure into the tubes. The first experiment was carried out with ammonia, and it was found that in fifteen minutes it had passed up the tube through the water, and had discharged the acid with which some litmus paper, suspended over the upper surface of the water, had been reddened. Very similar results were produced with other gases, quite irrespectively of their being lighter or heavier than atmospheric air; thus sulphurous acid passed through the water in an hour, and carbonic acid gas and sulphuretted hydrogen in about three hours. The same experiments were repeated after an open pipe had been inserted into the bend of the tube, so as to resemble the ventilating pipe of an ordinary water-closet soil-pipe, and the same results were obtained, although the reaction was longer in each case in showing itself. The results obtained by Dr. Fergus are interesting as pointing out strongly how misplaced is the confidence which the public have been led to repose in the traps with which nearly every house is provided, and how important it is not only thoroughly to ventilate our house-drains, but also to subject our soil-pipes to periodical examination.—*British Medical Journal*, February 27, 1875.

New York Infirmary for Women and Children.—A fair for the benefit of this institution is to be held on the 1st and 3d of May, from 10 a.m. to 10 p.m., at the new site occupied by the institution, No. 5 Livingston Place, Stuyvesant Square.

Garibaldi's Health is said to be suffering from the amount of "interviewing" to which he is subjected in addition to his other duties.

Reception Hospitals for Lying-in Cases.—The Commissioners of Public Charities and Correction have accepted the offer of the physicians of the House of Reception to the New York Infant Asylum, to use that institution in cases of maternity at an emergency, so as to prevent a repetition of such sad scenes as those which attended the death of Lizzie Stern. For the present, therefore, the ambulance surgeons will leave all cases found below Fourteenth Street at that institution, all above that line at Bellevue Hospital.

Dr. Alexander Goschen, the editor of the well-known *Deutsche Klinik*, recently died quite suddenly at Berlin, of pneumonia, in the sixty-second year of his age. He founded the *Deutsche Klinik* twenty-six years ago, and edited it to the time of his death, it being the first great medical weekly journal ever established in Germany.

The Medical Association of Virginia is to meet at Richmond on the 20th of October.

Postural Treatment of Retroversion.—Dr Aveling records, in the *Obstetrical Journal*, the following anecdote: The postural treatment of retroversion consists in lying or reclining upon the sides, or, still better, upon the face. Prostration is also an admirable attitude. A remarkable anecdote in support of this is told of a lady suffering from retroversion, who made her complaint the subject of prayer, and was surprised to find it answered only when she was upon her knees. All pain ceased during the devotional act—that is, when she unconsciously adopted the proper postural treatment.

The Seventh Annual Meeting of the Presbyterian Hospital was held on the 14th inst., when it was reported that about three hundred patients had been treated during the year. The pecuniary affairs of the hospital are said to be in a prosperous condition.

The Association of Medical Officers of C. S. Army and Navy will hold its next meeting at Richmond, Va., on the 19th of October next, instead of July, at 11 o'clock a.m.

University of Pennsylvania.—At the last meeting of the trustees of this institution, Dr. James Tyson was elected Professor of Pathology, Dr. Louis A. Duhring, Professor of Diseases of the Skin, and Dr. H. C. Wood, Professor of Diseases of the Nervous System in the University Hospital.

Von Luschka, Professor of Anatomy in Tübingen, died on March 1st.

Another Centenarian.—Baroness Schuhaj recently died in Prag at the age of 118—having been born in 1757.

Weekly Bulletin of Meetings of Societies.

Monday, April 26.—Medical Society of County of New York: "Conium; and its uses in Diseases of the Eye," by Edward Curtis, M.D.

Tuesday, April 27.—American Microscopical Society. Yorkville Medical Association.

Wednesday, April 28.—New York Pathological Society.

Friday, April 30.—Medical Library and Journal Assoc.

Original Lecture.

A NEW METHOD OF ARRESTING HEMORRHAGE.

A CLINICAL LECTURE DELIVERED BEFORE THE MEDICAL DEPARTMENT OF UNIVERSITY OF WOOSTER, CLEVELAND, OHIO.

By GUSTAV C. E. WEBER, M.D.,

PROF. OF CLINICAL SURGERY.

GENTLEMEN: I have selected this subject for discussion, partly with a view of making those of you who, as yet, are strangers to the various phases of the operating room, familiar with one of the most important tasks of a surgeon; partly, in order to explain to those who have witnessed similar operations, the differences in the modo operandi which I shall employ, and which they will readily detect—for I propose in this operation to employ the so-called "bloodless method" of operating, as suggested by Esmarch—and, also, to follow a plan devised by myself to secure permanent closure of divided arteries.

The subject of hemorrhage, or rather of surgical hemorrhage, is of vast importance. It should, at the very beginning of the lectures on operative surgery, receive on your part its full share of study and careful consideration. Not until you understand it fully, and are conscious of being able to master it under any circumstance, will you be able to undertake even an inferior surgical operation with satisfaction to yourself, with safety to your patient. The skill, dexterity, and coolness, which mark the experienced surgeon during the performance of the most difficult operation, spring from his consciousness that, let come what will, he is master of any hemorrhage that may occur.

The division of any structure of the body necessitated by surgical therapeutics, is naturally accompanied by more or less bleeding. At nearly every step of an operation hemorrhage presents itself to the operator, either in the character of capillary, parenchymatous, venous, or arterial. Knowing that there exists a marked difference in the size of the various vessels of the body, in the quantity of blood they carry, in the structure of their coats, in the influence of the "vis a tergo" upon the column of blood within them, in the various vascular territories and, also, in the tissue surrounding them—it is apparent, that those four varieties of hemorrhage differ in practical significance. In fact, you will readily become convinced, that under ordinary circumstances arterial hemorrhage alone is the special object of a surgeon's care and anxiety. Conditions exist, however—and they are sometimes hereditary—which may lead to an excessive, often dangerous, loss of blood from the division of even the finest capillaries, where by changes in the chemical and histological composition of the blood, by a modification of the structure of the vessel, and, probably, of nerve power of the vaso-motor nerve, a spontaneous arrest of the flow of blood is impossible. These conditions sometimes exist constitutionally, and are described under the term of Hæmophilia. Then again the surrounding tissue may prevent the change in the divided capillaries which is necessary for their spontaneous closure, and with which I shall presently attempt to make you familiar. Thus in tense and unyielding tissue, in the parenchyma of some of the organs of the body, a division even of fine and delicate vessels is followed by somewhat profuse bleeding.

Ordinarily, capillary and parenchymatous as well as venous bleedings are spontaneously arrested without the least assistance on the part of the surgeon. And you will even observe arteries of considerable size cease bleeding, without the application of any of the known means for artificial arrest of hemorrhage. Many of the gentlemen will have wondered in coming from the dissecting table, where they followed with the scalpel the numerous anastomoses of well-injected principal arteries in an extremity, why in the operating room, after all, only few of these vessels require the attention of the operator. At this period in the investigation of the subject, the questions naturally arise: How does spontaneous arrest of hemorrhage take place in the divided vessels? How does nature succeed in closing, temporarily or permanently, the opening in a divided vessel?

In order to appreciate the therapeutical value of the various means which we propose for the arrest of hemorrhage from any of the vessels, it will be necessary to understand, as far as we can, the process nature makes use of for that purpose. I am sorry to be compelled to acknowledge my inability to present you with undisputed facts in the premises; for it must be admitted by every one familiar with the results of the investigation of those who have contributed to the elucidation of this interesting subject, that its discussion cannot be considered definitively and permanently closed. Yet there is sufficient knowledge to explain this natural process approximately, and with it the correctness of at least some of our therapeutic agents. We shall have to premise a short sketch of the histology of the blood-vessels, in order to understand what, at the present day, is generally conceded to be the sum and substance of this matter.

You will not expect me to enter into details; they would lead me far beyond the limits of an occasion like the one which has brought us together here to-day. For a more minute study of this subject let me refer you to the elaborate article "On the Blood-vessels" in Stricker's Handbook of Histology, by C. J. Eberth; and, also, to the chapters "On the Tissues of the Body" in the carefully written work entitled "The Histology and Histochemistry of Man" of Prof. Frey of Zurich.

The vessels which carry blood in every direction over the body, viz., the arteries, veins, and capillaries, are membranous tubes of variable size and form, possessed of an extraordinary amount of elasticity and contractility. These qualities vary greatly with the size and the arrangement, quantity and quality, of the tissue of which they are composed. Thus in the minute capillaries, composed simply of spindle-shaped or polygonal cells, fitted together so as to form the finest of cellular membrane, we observe quite active, vital contractility, which in the larger ones, and in the arteries and veins, by the interposition of elastic connective and muscular tissue in their walls, obtain a degree of elasticity and contractility which intimately corresponds with the necessities of their function in different regions of the body.

The membranes of which these vascular tubes are constructed vary in thickness and number with the different vessels. Thus, as we have already indicated, the finest capillaries, of a diameter of not more than 0.0045–0.0068 mm., are composed of a very delicate membrane, which is perfectly transparent and apparently structureless until treated with a solution of nitrate of silver, when its cellular character is proved. In larger capillaries, which are situated near the arteries or veins, this cellular membrane is strengthened by the addition of another delicate, and homogeneous membrane; and in still larger ones, by an additional covering of a layer of delicate connective tissue. As the capillaries gradually merge into the ultimate termination of the arteries and veins, the thickness of their walls is further increased by the fact, that between the two internal membranes and the layer of connective tissue, a thin layer of contractile fibrillary cells and distinct nuclei (arranged circularly around the longitudinal axis of the vessels) is interposed. All these layers observed in the larger capillaries gradually grow thicker, and become more important, until in the arteries and veins we recognize three distinct coats of the vessel, viz., an external one or *tunica adventitia*, composed of fibrous and elastic tissue with its fibrillæ and filaments surrounding it spirally, obliquely, and netlike; next, a middle coat, or *tunica media*, this coat forming the main thickness of the arterial vessel. It has a yellowish color, consists mainly of muscular and elastic tissue, and surrounds the vessels for the most part circularly. The third is the internal coat, or *tunica interna*, formed by the original cellular membrane, as observed in the most primitive form of capillaries. It consists of a homogeneous elastic basement membrane, and of layers of elastic tissue, forming netted and fenestrated meshes pursuing a longitudinal direction. To the external coat the vessels mainly owe their tenacity; to the middle and internal, their elasticity and contractility. Veins and arteries differ greatly as to the relative amount of tissue in these three tunics, and in the arrangement of fibrous and elastic as well as muscular structures. It is this difference which furnishes the peculiar characteristic features of each set of vessels. Thus in the arteries of medium calibre, the middle tunic is the thickest and gives the vessel its peculiar cylindrical form, which enables us readily to distinguish an artery from a vein; whereas in veins the external coat is the thickest, the thickness increasing with the calibre of the vessel. In arteries, however, the middle coat, composed to a great extent of unstriated muscular tissue, varies inversely as the size of the vessel. Besides these three tunics proper which enter into the structure of vessels, the latter are loosely surrounded by a network of connective tissue. This helps to fix the tubes in the territories through which they pass, and in the largest arteries and veins it takes the character of an additional coat, surrounding them sheath-like, being unquestionably destined to maintain them in proper relation to the surrounding tissues. The three coats are nourished by the so-called vaso-vasorum vessels, which ramify mainly upon the middle and external coats; and their innervation is accomplished by the vaso-motor filaments of the sympathetic and spinal nerves.

The blood, gentlemen, which courses in these vessels, is a most complicated fluid, and the centre of all vegetative vital processes. According to calculations of Welker, it makes up in the new-born child about one-nineteenth, and in the adult one-thirteenth, of the entire weight of the body. Its various histological and chemical elements are maintained in proper reciprocal relations so long as it is propelled through the different channels of the vascular system with normal velocity, and according to the proper dynamic laws. But whenever those relations vary materially, or cease altogether, as when the blood escapes from its physiological abode, the fluid condition is lost, and the blood coagulates.

The coagulation of the blood is due to the solidification of its fluid intercellular substance, brought about by the formation of a body called fibrine. With our incomplete knowledge of the protein bodies of the animal organism, the character of fibrine cannot be accurately stated. Chemically, it varies from the albumen of the blood, the chyle, and lymph, merely by a slightly higher degree of oxidation; yet, in its coagulation, it presents entirely different physical characters from those of coagulated albumen. It has been supposed that fibrine, as a distinct protein body, is held in solution in the blood-plasma, and that its physical features are evolved only when it leaves the body or when exposed to chemical and physical influences different from those which prevail during physiological position and motion. Experiment and observation, however, favor the views expressed by A. Schmidt. He maintains that blood and all fluids which yield fibrine contain a fibrinogenous and a fibrinoplastic substance. We call the former also "meta-globulin," and the latter "para-globulin," and believe the former to be contained in the blood-plasma, in nearly all serous fluids and fluids permeating muscular and connective tissue. The latter is bound to the cellular element of the blood and the structures, which contain the fibrinogenous substance. The fibrinoplastic power is set in activity whenever the fibrinogenous substances become subject to other than physiological influences. Now, while our understanding of the details concerning the coagulation of the blood is unquestionably rather limited, the clinical fact is authentic, that coagulation takes place, with somewhat variable rapidity, soon after the blood has left its accustomed channels in the living body, accidentally or otherwise; that, in fact, already on its way out, it congeals under ordinary circumstances, and forms props of coagula that reach often to a considerable extent into the vessel from which the blood was derived. These ordinary circumstances exist, whenever the opening into the vascular territory is such that the blood-pressure is materially diminished in the province which furnishes the blood, so that the fibrinoplastic influence of the cellular elements of the blood can be fully exercised, and that the opening can retract within the surrounding muscular or connective tissue, pregnant with this same fibrinoplastic material. Experiment and clinical observation have shown that whenever the blood is expelled under almost normal blood-pressure, as in longitudinal wounds, or by division of large arterial trunks, the coagulation of the blood does not begin in the vessel. This would go to demonstrate that during the diminished pressure of the blood at the instant of its escape from a vessel, is the brief moment which calls out its fibrinoplastic property. Besides these general causes leading to the development of thrombus in an open blood-vessel, we can detect other conditions which will facilitate it and assist in the spontaneous arrest of hemorrhage. Thus the coagulability of the blood greatly increases with the increase in the amount of the loss of blood. Bruecke has demonstrated, that the last four drops of blood coming from an animal dying from hemorrhage, almost instantaneously coagulate, although under these circumstances the blood is excessively poor in fibrine.

We must recognize, then, in the physiological changes wrought by injury of a vessel, as well as in those of the surrounding textures, a potent element for or against the formation of clot. The various tissues, divided accidentally or otherwise, and the vessels, when severed, contract, both by their own vital character and by nerve influence; a mechanical act is thus brought to bear upon the blood. In the first place a certain amount of pressure will be exercised by the contracted tissue upon the vessels; and next the contracted vessels will furnish an impediment to the exit of blood, and assist in its coagulation. There can be no doubt as to the fact, that to this peculiar power of coagulation of the blood, to the formation of a clot of blood or thrombus under proper conditions, is due the spontaneous arrest of hemorrhage from openings in the vascular tissue of the body. But in order that that formation should be possible, the opening evidently must be of a nature such as to cause the fibrinoplastic element of the blood and surrounding tissue to exert its power.

During the performance of a surgical operation, this is nearly always the case. Quite a number of blood-vessels, large and small, are opened at once, and owing to the collective escape of blood, the lateral blood-pressure is greatly diminished. Then, the tissue, by the application of the stimulant of the operation and by their own vital contractility, contract, press upon the sides of the vessels, and impede the flow of blood. Finally, the vessels themselves retract and contract, so as not only to furnish an obstacle to the flow of blood, but also to enable it at once to come in contact with the fibrinoplastic substance contained in the cellular elements of the surrounding tissue. If you will recollect the ingenious arrangement of the different layers of the coats of the vessels, and also their histological character, you can appreciate the quantity of retraction and contraction, and of impediment, which will be produced. You will then readily understand why it is that in many operations entailing quite extensive division of structures and vessels of different size, unaided nature is generally incompetent to prevent undue loss of blood. And you will be able to explain also, why in cutting very large vessels, we are compelled to interfere promptly, to prevent the disastrous effects which would follow uncontrolled hemorrhage.

In order, gentlemen, to make this subject still clearer to you, let us for a moment consider the nature of the changes which are observed to result from the inherent contractility of the more important vessels when divided. The typical form of these changes we can study in an artery of small size, which, when severed, presents the characteristic cylindrical form. The same changes, variable only in degree, can unquestionably be demonstrated in almost all the different vessels. The middle coat of a small-sized artery is the thickest of the three coats, and possesses beside the elastic fibres (arranged in circular and fenestrated network) considerable muscular tissue which will contract, when stimulated or deprived of the normal tension maintained by the presence of the blood. This contraction will be beyond the limit of the vital contraction of the internal tunic, more especially of its cellular lining, and must cause a folding up of this layer of the vessels. In fact, we find that this takes place to a considerable extent. The entire intima is fluted longitudinally as distinctly as the ruffles of a lady's garment, and this must offer considerable impediment to any flow of blood from the open mouth of the vessel. It is very probable, that this pleating of the intima is a very active stimulant to the formation of the clot. The middle coat in the larger arteries loses a great deal of its muscular elements, and the chances of spontaneous arrest of bleeding from such vessels are materially lessened. It is to my mind a proper question, whether this is due to the absence of the folding of the intima, or merely to the fact that the vis a tergo is increased so that a clot cannot resist it. If a clot can be formed, it will be proportionate to the dimensions of the vessel; hence in a larger vessel the clot is as competent to resist the impetus of the blood, as a smaller clot in a narrower vessel.

The external coat of the artery, composed mainly of longitudinal and oblique fibres, retracts the vessel after division, so as frequently to conceal it within the surrounding tissues. The overlapping of these tissues also impedes the exit of the blood. From what has been said of all these physical changes in the injured vessel, it would seem rational to suppose that they are linked with the vital changes in the blood, and that thus the object of the spontaneous arrest of hemorrhage is attained.

The next question is of great interest and importance, on account of its bearing upon the various methods of treatment required when nature fails. It is this: "In what manner is the permanent closure of the vessel effected?" In former years, it was thought that inflammation furnished plastic material, which organized and filled up and obliterated the opening. Consequently it was the surgeon's mission, whenever it became necessary to employ artificial means for the temporary arrest of bleeding, to apply them in a manner such as would guarantee the supervention of inflammation. The surgeon was instructed to apply his ligature in a manner such as to break the brittle internal and middle coats, in the expectation that they would roll up and come together in the line of their fracture, and readily unite by adhesive inflammation. It was believed that without this the process of permanent closure could not be completed, and that secondary hemorrhage would then naturally follow.

Virchow, Billroth, and C. O. Weber, however, have endeavored to establish the fact that the final closure was due not to inflammatory action, but to the organization of a clot. Of late, several contradictory statements have been published. In 1869, Dr. Tschausoff published an elaborate article in The Archive of Clinical Surgery of Langenbeck, "*On the Thrombus following Ligature*," in which he tries to prove by a series of carefully conducted experiments, that the thrombus itself does not organize, but that it is only a temporary formation; and that the obliteration emanated from the walls of the vessel. Now let us look into this matter more closely.

Whatever may be the exact process which definitely repairs the damage done to the vessel, it is surely conceded by every one, that it can be completed independently of inflammatory action, and that the supervention of the latter may prove an obstacle to the completion of the reparative process.

It would, therefore, be very desirable that all of the measures which we may be called upon to employ be so used as not to excite inflammatory action.

The method which proves the least irritating and injurious will be the one most worthy of our confidence.

Now, if you critically consider these various methods of treatment for the arrest of arterial hemorrhage, you will readily admit, that every one adds to the injury already done to the vessel by division. Their action is entirely mechanical, having no regard to the process nature employs for the spontaneous arrest of the flow of blood. The ligature constricts the end of the vessel, so as to entail the death of the little piece on its distal side. It usually breaks the internal and middle coat, and must naturally be a source of irritation. The views which we entertain with respect to the possibility of development of phlogogenous substances in wounds, lead us to suppose that the ligature can readily become the nidus of that destructive agent. The string of silk and linen ordinarily used for ligature, will, seton-like, imbibe fluids of the wound; decomposition of these, with development of minute animal and vegetable organisms, will necessarily result, and a source of local and general infection be produced. Metallic ligatures may not be open to this objection; but they constrict, and lead also to the death of a small portion of the vessel, sufficient for disintegration and formation of septic matter.

Torsion twists and tears the various coats of the vessel; this must lead to modifications of nutrition, inflammation, and possibly also to the destruction of a certain amount of tissue. The same results must follow the use of the method of treating the artery by *refoulement*, *machures* or *applatissement*. The more modern improvements in these latter methods, as suggested by Drs. Spier and Stearns, are not exempt from these objections. Perplication, the method of Dr. Stilling, is very difficult of execution, and, for safety, too uncertain in its action. With acupressure, the end of the vessel is not injured, yet it brings additional injury by the passage of needles, and does not command the confidence of the operator as regards safety.

The *acuclausur* of Schmitz may be objected to for the same reasons.

It is unnecessary to detain you much longer with a minute discussion of the various disadvantages of these different methods of treatment known to our art. Diefenbach in his operative surgery recounted, over thirty years ago, many of these objections, and expressed the opinion that the profession was alive to the importance of the subject, and striving to perfect this part of surgical labor. He stated that some of the best men had made efforts to suggest improvements, but that the ligature, with all acknowledged deficiencies, had still maintained itself from the days of Ambrois Paré down to the present time. If we study the recent books and current periodical literature on the practice of surgery, we become convinced that the sentiment of Dieffenbach still holds true, that the profession still feels the necessity of continued effort to devise means less liable to danger. I have had the opportunity of giving this subject considerable thought, and am now certain that we cannot hope for a realization of the object of these efforts, so long as any proceeding suggested entails additional injury and disregards the teachings of nature.

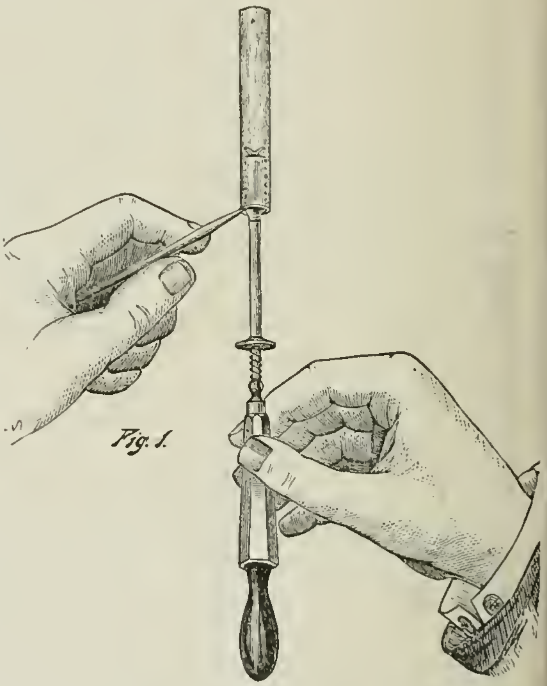
We should have a process of treating the divided vessel which would simply assist nature, not supplant her, by mechanically acting principles. The failure of nature to spontaneously arrest hemorrhage in larger-sized arteries is unquestionably due to the fact that they do not possess, for cogent physical reasons, sufficient muscular and circularly arranged fibres to bring about the contraction and diminution of the short axis of the vessel, and to effect longitudinal pleating, which we believe important, both for the evolution of the fibrinoplastic agency and the security of the clot when formed. It does not seem probable to me that, other things being equal, the greater force of the blood, on account of the larger size of its column, should be the only reason why the spontaneous arrest cannot take place in a larger vessel.

We know that the muscular tissue of the middle coat, the chief contractile material, is not commensurate with the size of the vessel, that, in fact, as remarked before, it positively diminishes with the size of the vessel. There must be a reason for this; it cannot be accidental. It must find its explanation in the physical necessities of the circulation of the blood in large vessels.

Now, if this be correct, and if the want of sufficient contractile force is the cause of the non-arrest of bleeding, can we not rectify matters by simply doubling or trebling the amount of the circularly-acting tissue, by turning the end of the vessel inside out, as we would turn up the cuff of a sleeve? By so doing, we would obtain double or treble the amount of contractile force, and also furnish an equivalent for retraction.

I conceived this idea of imitating nature in the arrest of hemorrhage a number of years ago, and often expressed the same to former classes of students and to my private pupils; but the question naturally arose, whether it was mechanically possible to accomplish the process of turning over such small tubes as arteries.

With a view to the solution of the question, I looked around for some instrument to assist this mechanism. My first thought suggested a delicate-toothed forceps with which to enter the vessel up to the point whence the reflection should be made; then to take hold with it, and with another forceps to grasp the end of the artery, so as to enable me to slip the piece intervening between the first and second forceps over the fixed point at the first forceps.



Then, again, I proposed to use a single or double hook. Finally, in thinking over the various instruments which might be applicable or constructed for that purpose, I hit upon a little instrument invented by M. Lüer, of Paris, and called by him *fixateur à gaine*. Experiments on dogs soon taught me, that what appeared at the first glance so very difficult was quite easy. In fact, in trying the instruments which have been mentioned, I was astonished at the ease with which that turning of the end of the vessel could be accomplished. The experiments were performed with the assistance of my friend and former pupil, Dr. D. B. Smith. But another difficulty presented itself which then seemed an insurmountable obstacle to the realization of the object of our investigation, viz., the fact that after the reflection was made, the alternating distention and contraction of the vessel soon forced the reflection back to its original position. While, however, the reflection remained *in situ*, the quantity of blood oozing out was very small. We selected the iliac and the aorta abdominalis for these experiments,

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FIG. 1 represents the aërteriverter introduced up to the points where the artery is to be turned, with the double hooks extending a little beyond the cylinder.

and found that in the former it required about ten beats of the pulse before the vessel was straightened out again, while in the latter only about six were required. We also found that the fixateur à gaine was the instrument which accomplished the object most promptly without lacerating or injuring the internal coats.

Since making these limited experiments, I have made a number of attempts to test this principle of treatment on the human subject; but on account of the poor construction of the instrument I had to abandon my endeavors in that direction. Of late, however, the enthusiasm that I felt when first working out what I think is an important principle in surgical therapeutics has revived, especially since, with the application of the method of Esmarch which I have described to you, the possibility is given to make these experiments on the living subject without endangering the life of the patient. That you may understand fully the *modus operandi* of the method (which I propose to test in the case of amputation presently to be performed), I show you these illustrations. If this proceeding of treating arteries succeeds, I propose to give it the name of *ærteriversio*, and the instrument the name of aërteriverter. My distinguished friend M. Lüer will pardon me that I make so free with an instrument of his invention.

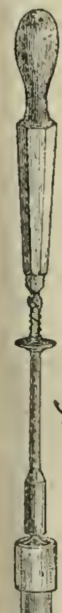
Fig. 2.

Fig. 2 will give you an idea of the condition of the artery at the moment the end is reflected prior to the removal of the instrument. You can imagine that I enter upon this trial with a considerable degree of trepidation, remembering the difficulty previously experienced owing to the fact that the reflection would not remain in place, and that my aërteriverter has not improved by occasional use. I hope, however, to overcome the first difficulty by making the reflection quite extensive, and, with a view of securing it in place, notch the vessel at the point of reflection, so as to enlarge it there, and thus offer an obstacle to its slipping back. If this should not prove sufficient, I propose to introduce immediately behind the point of reflection, a little delicate peg, made of the end of a number 12 English sewing needle, after the manner depicted in Fig 3.

Should the contraction, after the reflection has been accomplished and secured, fail to instantaneously arrest the bleeding, I shall do that which we have to do occasionally in hemorrhage from capillaries and smaller vessels, viz., for a short time apply a digital compression to the end of the artery, while at the same time I shall prevent the blood from exerting its full force in the end of the vessel.

With this I expect to obtain a temporary clot which will answer the purpose. Should we have the good fortune of realizing that the possibility and practicability of this treatment will be demonstrated, there will then be ample room and occasion for further study.

With these hasty remarks we will leave the discussion and proceed to the performance of the operation.

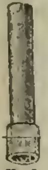
Fig. 3.

At this juncture the patient was brought in, and after being placed under the influence of ether the operation was performed in the manner above indicated, the division of the muscular structures falling in a line a little above the union of the upper third with the middle. The bandage and elastic tourniquet of Esmarch prevented any loss of blood save possibly that of a dozen drops. Two muscular branches were secured by ligature, but the femoral was treated in the manner described. Although the instrument used was poorly made, the little hooks not being placed in a direction such as to enable them readily to be hooked into the walls of the vessel at the point of reflection, yet the act of turning was comparatively easy. After the reflection had been made, the tourniquet was loosened sufficiently to allow the pulsation of the vessel to be seen, when a fine spiral stream of blood escaped from the artery *per saltum*. I then notched the vessel, by means of a pair of fine scissors, at each end of a transverse diameter. The notch was made through the two walls—the main wall and the reflected—and, commencing at the point of reflection, extended about two lines in a longitudinal direction.

Owing to the contraction of the circular fibres after division, a wedge-shaped gap was formed at each notch, so that the circumference of the vessel at the edge of reflection was increased. This caused the reflected piece to appear to surround the end of the vessel more closely, in fact to constrict it. These steps of the experiment were made with the stump almost extended. While in this position, an irregular spurt of a small spiral stream of blood was observed whenever the blood was allowed to be driven into the artery by the full force of the circulation. When, however, the stump was flexed at right angles with the body, no such spurting took place. Fearing that hemorrhage would not entirely cease, and appreciating the debilitated condition of the patient, I felt it necessary to guard more thoroughly against any sudden loss of blood. I therefore introduced, immediately behind the points where the vessel had been notched, two of the little pegs which I described before. They were placed so as to cross each other at right angles. On account of the remarkable retraction of the surrounding muscular tissue, and owing to the fact that it required considerable manipulation to make the aërteriverter work, the vessel was quite prominent, and not withdrawn into the surrounding tissue. This enabled me and those present to become convinced that the vessel, after the application of the pegs, was hermetically sealed; for notwithstanding that the full force of blood was pumping against the end, so as to raise and depress it with every wave, not a vestige of blood escaped. The wound was allowed to remain open, in order to give an opportunity to study the process of repair.

At the end of about half an hour, the patient having been placed in bed and the stump supported by compresses, one of the pegs was removed. For nearly forty-eight hours the vessel moved with every pulsation; yet, on applying the sense of touch, no dilatation could be felt within over an inch from the end of the artery, and I felt justified in supposing that the artery was well closed by clot. Gradually the wound became covered with granulations, which increased until the stump of the vessel was completely removed from view.

The process of repair was tedious, as was to be expected from a constitution like the one we had to deal with. The patient finally recovered, however, and at the present writing enjoys a fair degree of health. I am unable to state what has become of that little peg.

Since the performance of this operation I have had the opportunity of employing this method in three cases. The first was an amputation immediately below the shoulder-joint. The brachial was treated by simple reflection and one peg. The patient had been an intemperate man; and fearing the development of dilerium tremens, I thought it best to apply the peg in addition to the reflection, although this alone closed the vessel. The patient died of septicæmia on the twelfth day, and upon making a post-mortem examination, I found the entire wound in a gangrenous condition, and yet the artery nicely closed by a thrombus of an inch and a half in length, presenting its characteristic form, and having already entered at several points into firm connection with the tunica intima.

The second case was an amputation of the leg through the middle third, where the anterior and posterior tibials were treated by simple reflection and one peg. The peg, which was passed through the anterior tibial, was removed within twenty minutes. This patient recovered rapidly, without the slightest untoward occurrence. Three days ago it was my privilege to try this method again on the femoral, after an amputation through the middle third by my friend Professor Holliday, of the Cleveland Medical College. The artery was reflected, one peg inserted, and the bleeding instantly arrested. During all these trials I labored under the embarrassment and difficulties naturally resulting from an insufficient instrument. On account of the poor quality of the hooks, the instrument failed to take hold readily. Repeated attempts had to be made before I succeeded, and it is reasonable to suppose that in these attempts the various coats, more especially the brittle internal and middle coats, were more or less injured, so that their contractile power, by which the cross section of the vessel could be diminished, was considerably lowered. Whenever the hooks took hold properly, the mechanism of turning the end of vessels, large or small, upon itself, was quite easy. In fact, my experiments on dogs have convinced me that that part of the method will be unobjectionable. I have experimented with very small arteries of dogs, and find that they can be turned inside out as easily and as promptly as the larger ones. I have the assurance of Mr. Stohlman, senior partner of the firm of Geo. Tiemann & Co., that the little instrument which seems to be best adapted for the purpose of turning the vessel, can be constructed so as to promptly take hold at any point desirable; and at the present time he is constructing a number of these instruments in proper sizes, to correspond with the different calibres of the arteries which have to be treated.

Judging from the experience that has been gathered by me in regard to this subject, I feel justified in expressing the opinion that this method of treating arteries is a justifiable proceeding, and that it is practicable in a large number of surgical operations. I also entertain the hope that whenever the reflection is easily and skilfully performed by the proper instrument, the reflection alone will be sufficient to arrest hemorrhage, and that perhaps only in the largest arteries it may be necessary to add one little peg. The success of the trials which I have made seems to me sufficient to justify my bringing this subject to the attention of the profession.

I have taken the liberty to call this method new, from the fact that the literature of the subject, as far as accessible to me, does not mention a single idea pointing to the principle involved in it. If it has been my misfortune to overlook the labors of the past and present in this direction, I shall be most happy to give credit where it properly belongs, and renounce all claims of priority. In either case, I beg leave to urge upon the profession a careful investigation and study of the subject.

87 Prospect St., April 15, 1875.

Original Communications.

REMOVAL OF A PIN FROM THE DEEP URETHRA.

By E. L. KEYES, M.D.,

NEW YORK.

In the Medical Record of March 6th, 1875, I communicated a case, with some remarks, on the removal of rounded foreign bodies from the urethra, by means of Thompson's divülsor, and ventured to predict success for the instrument in its wider application as a forceps.

The following case is in point, and the brilliant result which attended the use of the same instrument in extracting one of the longest and sharpest of the foreign bodies apt to find its way into the male urethra, justifies the publication of a note upon the subject before the memory of the older case grows cold.

* * * * *, a young man, was sent to me at my office, on the morning of April 16th, by a physician, with a note, stating that he (the patient) believed he might have a pin in the urethra. The doctor had found a stricture of large calibre at four inches, and, with a steel instrument, felt something gritty, which he believed might be a pin or a calculus, "at five or six inches."

The patient's story was that he had been troubled in voiding urine for some time previously, and on the night of April 15th, while under the influence of liquor, had found himself unable to pass water at all; that he had consequently introduced a pin, head-foremost, into the urethra, and "thought it might have dropped in;" that his retention was relieved later in the evening by a physician, who passed a catheter, and that on the following morning (April 16th) he had applied to the physician who sent him to me.

Examination of the urethra externally failed to detect anything feeling like a foreign body. Pressure on the perinæum caused pain, but not a sharp pain, as of pricking.

I passed a long whalebone filiform guide, and distinctly felt the grating against a foreign body in the deep urethra. Upon the guide, Thompson's divulsor (tunnelled) glided smoothly into the bladder. The blades were separated widely, and were then again approximated, the entire instrument being rotated over about a quarter of a circle back and forth while the blades were approaching each other, as I believed this manœuvre well calculated to catch a pin.

On withdrawing the divulsor, closed, the pin was found within it, at a point corresponding to 5½ inches from the meatus. The pin was a stout brass one, 1⅓ inch long, and came out point foremost, but lying snugly between the hollowed blades of the divulsor, its point unable to catch the urethral walls.

The gratification of the patient may be better imagined than described.

An ordinary forceps would have encountered great difficulty in catching this foreign body in such a manner that the point would not have lacerated the urethra on its way out. The pin could not be felt from the perinæum or the rectum, so as to have its point pushed through the integument, and then to be forcibly extracted by Dieffenbach's* method; and had it reached the bladder, a stone and subsequent lithotomy would have been the least bad results—in short, it is hard to conceive of a method better adapted to such a case than the one used, and therefore it is now justifiable to extend the probable applicability of the divulsor as a forceps to the extraction of all foreign bodies from the urethra, long and sharp as well as rounded.

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* Ueber fremde in die männliche Harnröhre eingedrungene Körper. Casper's Wochenschrift, 1. 1843.

PERITYPHLITIC ABSCESS.

By P. B. PUMYEA, M.D.,

IMLAYSTOWN, N. J.

In the Medical Record of April 17th, a case of perityphlitic inflammation is reported, which resulted in suppuration and, fortunately, in recovery.

My experience in the treatment of three cases, so similar in symptoms, and so dissimilar in the progress and result of the inflammation, has been so different from Dr. Pooley's that I am induced to place an abridged report upon record.

On Sept. 19, 1873, a boy æt. 13, previously and now in good health, came to my office complaining of pain in his back, side, and right hip-joint, and with a tender tumefaction in the right iliac fossa. This tumor was disconnected with the abdominal walls, as they were freely movable over it.

The tumor continued to increase in size and the tenderness and constitutional symptoms to grow worse until the 24th, when vesication was produced over the site of the tumor.

On the 26th, only the second day subsequent to the application of the blister, I was equally surprised and gratified to find the tenderness much diminished and him much improved in appearance and feelings. From that date, his convalescence and the disappearance of the tumor were continuous and rapid.

On July 15th, 1874, I was called to see a young lady who had just had an attack of cholera morbus. Although the pain had subsided, the nausea and vomiting still continued, and subsequently the stomach became so irritable that all medication and nourishment had to be given per enema.

A few days after my first visit, my attention was directed to a pain in her right side, and on examination, a perityphlitic tumor was discovered. A blister was immediately applied and, although the effect was not so marked as in the other case, still its efficiency was very appreciable and significant. Owing to the gastric irritability before mentioned, convalescence was slow, but no suppuration ensued, and she made a good recovery.

Again, on Feb. 10th, 1875, I was called to see a boy æt. 14, with a pain in his side. On my arrival, after patiently listening to several volunteered diagnoses, I found his abdomen swollen and tympanitic, and particularly tender in the right iliac region. By firm pressure and gentle percussion in that situation, I found there a circumscribed solidification and made the diagnosis of perityphlitic inflammation and consequent peritonitis.

I ordered turpentine stupes and gave opium; but no improvement was effected, until a blister was applied, which again speedily established convalescence and confirmed my belief in the efficacy of vesication in such cases.

During his sickness, I was informed that he had had an attack of the same kind before, and the doctor had then told his mother that, if she had given him a dose of castor oil, before he was called, that he would not have been so bad. She, acting upon that suggestion, had given him two doses of ol. ricini before I was sent for.

If I were asked to formularize the treatment in such cases, I should emphatically say *avoid* cathartics, apply a blister externally, and give opium p. r. n. internally.

Progress of Medical Science.

Antiseptic Japanese Paper as a Dressing for Wounds and Ulcers.—At a meeting of the Clinical Society of London, held February 26, Mr. Callender presented some specimens of Japanese paper that had been prepared with antiseptic solutions in two ways. The first method was with a solution of salicylic acid and mastich. He took of salicylic acid forty grains; mastich, sixteen grains; rectified spirit, one fluid ounce; he then dissolved the mastich in the spirit, added the acid, and shook the whole until it was dissolved. The second method was by a solution of carbolic acid and mucilage. He took of carbolic acid one ounce; mucilage of acacia, one ounce; water, twenty ounces; he dissolved the acid in the water, added the mucilage, and mixed the whole. The strength of this solution, he thought, might be varied, but it was desirable to prepare it of a greater strength for keeping than for immediate use; first, to allow for the loss of carbolic acid from evaporation; and secondly, to permit the dipping of the prepared paper in water before it was applied as a dressing, a process which necessitated some further dilution of the acid. The mastich and the mucilage were added to increase the softness of the paper. Two sheets of paper were placed together, saturated with either of the solutions; they were then rapidly dried and preserved in tin boxes. They might be applied, as ordinary lint, either wet or dry. Ointments could be spread upon the paper, and Mr. C. thought that it was well adapted for use in various skin affections where such medicaments are needed. One advantage that it had was its cheapness as compared with lint.—*British Medical Journal*, March 6, 1875.

Infection by Cadaveric Poisoning.—It is generally thought that infection by cadaveric poisoning only takes place where there are lesions of the integument, and especially when these are recent. Some authors, such as Neumann, Cohnheim, and Hueter, have, however, proved apparently that the introduction of putrid agents may take place through the glands of the skin, in the same manner that certain medicines externally applied find their way to the interior. The glands of the skin differ in this regard and the sudoriporous glands have this property to a much less extent than the others.

The first observations of M. Odenius were made some time since; his attention was called to the subject by the occurrence of several pustules on the back of his hand and wrist, two or three days after making a post-mortem examination, when there had been no abrasion of the skin. These pustules always had a hair in the centre. The cause was found to be the use of rancid sweet oil for smearing his hands before making the examination. There were no pustules when he used no oil. Subsequent analogous observations caused him to suspect that cadaveric poisons might enter the system in the same manner. This suspicion was confirmed by an accident in 1871. Having made an autopsy on a fresh subject, dead of pneumonia, a painful swelling appeared the next day on the volar surface of the forearm. There had not been the slightest lesion of the surface, but during the dissection a little matter from the cadaver had run down upon the arm and dried at the wrist. The affection terminated by the mortification of the diseased parts. Movements of the muscles of the hand and forearm caused chills, which were attributed to the introduction into the veins of pyogenic matter from the inflamed parts. The lymphatic glands and vessels were not attacked, the axillary glands alone excepted.

Similar phenomena were subsequently observed by the doctor under similar conditions in other persons. He had also observed that the same accidents happen to accoucheurs after prolonged obstetrical manipulations.—*Nord. Med. Ark.*, vi., 7.

Leptus Autumnalis.—In Thisted, a small village of Denmark, an epidemic occurs every summer, which is called by the inhabitants *Augustknuder*, or, "August-buds." The disease makes its appearance regularly at the end of July, and continues until the first of September. It is characterized by an exanthem, which usually appears on the forearms and neck, and is at first papular, then vesicular and pustular, and is characterized by intense itching. It is most frequently observed among persons who work in gardens.

Dr. Heiberg, suspecting the cause of the malady, made a number of ineffectual researches, when at last he had an opportunity of examining a patient whose skin, in consequence of a cerebral affection, was in an almost anæsthetic condition, and she had not, therefore, scratched the skin. In the centre of the papules, he discovered some red points which, examined under the microscope, were recognized as the *leptus autumnalis.* Gudden distinguishes two forms of this larva; the larger one is yellowish, the smaller red. He thinks the former is destined to become the female, and the latter the male. All the insects discovered by Dr. H. belonged to the second category. The development of the insect is still unknown. Kraemer has observed it on two moles, a field mouse, and a bat. Dr. H. thinks its presence was only accidental on these animals, as well as in man, the larvæ not finding there the conditions favorable for their ultimate transformations. It is thought, however, that these neutral larvæ need to live on the body of some warm-blooded animal in order to accomplish their metamorphoses, and the author is of the opinion that they usually attach themselves to birds, the latter offering the most favorable conditions for the further development of the insect.

This disease has also been observed in Versailles.

As a prophylactic, lotions of the alcoholic extract of Pyrethrum caucasicum flowers are recommended. Should the disease become developed, the same remedy will also relieve the itching, and cause the exanthem to disappear.—*Nord. Med. Arkiv.*, vi.,25.

Nussbaum on Cancer.—Prof. Nussbaum of Munich thus formulates his views on this subject: 1. Cancer is a proliferation of the epithelium; it extends rapidly and displaces the connective tissue stroma, ulcerates from slight causes, causes destruction locally, affects the patient deeply by suppuration and hemorrhages, and ultimately diffuses its particles through the whole body, causing like proliferation and destruction in various organs, and in this way death. 2. Advancing age, grief and care are to be regarded as among its causes, while all structures in which there is a disproportion between the epithelium and connective tissue, such as warts, scars, glandular nodes, etc., predispose to its formation. Such parts also are especially liable to it which are often irritated but never acutely inflamed. Cancer is not congenital or inoculable. It is at first a purely local disease and the general system is involved by infection from the original focus. 3. The relapse of cancer after operation is either by continuity of cancerous elements which have been left behind; or from neighboring diseased tissues already predisposed to cancer which have been left behind; or a relapse may occur from the transportation of cancerous particles which have found their way into the circulation and have been thus disseminated. 4. Cancer can be radically cured by early and extensive operations. 5. According to full statistics, patients who are operated on live decidedly longer than those who have not submitted to treatment. 6. All remedies which act upon the tissues, the blood or the nerves, may deserve consideration. Early and thorough operation, however, stands at the head of the list.—*Aerzt. Int.-Bl.—Allg. Med. Centr.-Ztg.* Mar. 27, 1875.

Local Effect of Ice on Animal Temperature.—Schultze, of Heidelberg, in an article on this subject in the *Berliner Klin. Wochenschrift*, has tested the effect of ice on the deep-lying organs by performing a series of experiments on dogs. The hair was shaved from the belly of the animal, and an ice-bladder, the size of which was in proportion to the weight of the body, was applied. A Haidenhain's thermometer was inserted through an incision into the abdominal cavity. After reading off the diminution of temperature produced by a prolonged action of the ice, the animal was killed by chloroform, and the relative depth of the mercurial cylinder determined. It was found that at its deepest position a diminution of 2¼° F. was the maximum produced by the application of ice for one hour, and a limit was found to this diminution which was not exceeded by a longer application.

Other experiments, in which several thermometers were introduced to various depths, showed that the diminution of temperature was lessened in proportion to the distance from the surface.—*Ugeskrift f. Laeg.*, Nov., 1875.

Retained Placenta.—In reference to some cases of retained placenta that had been treated by forcible removal, which he regards as a dangerous practice, Dr. Linéard, of Caen, calls attention to the fact that many years ago he published a simple procedure, which he has always found as effectual as it is safe and easy, and which is also a very efficacious means for the prevention of after-pains and uterine hemorrhage. It consists in the injection of the umbilical vein with cold water. A clean section should first be made, so as to bring the vessel plainly into view, and also to shorten the cord, which should not be more than from twenty to thirty centimetres in length. A syringe, containing at least 150 grammes, and having a long fixed canula, should be employed. The colder the water used, the less is the quantity that need be injected; so that while 150 grammes suffice at the ordinary temperature of winter, twice or thrice as much may be required in summer.—*Gaz. des Hôp.*, February 25.

Tincture of Iodine for Cloasma Uterina.—Dr. Dubois recommends this method of treating the unsightly patches that so frequently disfigure the faces of pregnant women. Every evening a coating of the tincture is to be applied to the spots. The epidermis exfoliates and the spots disappear. If this does not follow the first application and some pain results, he then suspends the use of the iodine and replaces it with cold cream. Then, when the epidermis is newly formed, he recommences the use of the iodine, and this time the patch will disappear entirely.—*Gaz. Hebdom.*

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of the American Medical Association will be held in Louisville, commencing the first Tuesday in May. The attendance will doubtless be reasonably large, and the sessions, it is to be hoped, will be profitable to all. The new plan of organization which went into effect last year worked in a very satisfactory manner to all interested in the welfare and continued prosperity of the Association. The establishment of a Judicial Council, to which all vexed questions of an ethical character are to be referred, was a very necessary step to be taken in view of the unenviable notoriety which this Association had gained as a quarrelsome body. During the session at Detroit there was not a single circumstance which occurred to mar the harmony of the meeting, nor to create any of those individual misunderstandings which are so apt to take place in large and promiscuous gatherings. From this last meeting, the Association takes a fresh start towards extending the usefulness and enlarging the influences which justly belong to such a representative body.

All the elements exist for making the coming meeting a memorable one socially and scientifically. The sections have been well provided with representative men as chairmen, and there is no reason why the meetings of these branch societies should not be profitable to all concerned. In fact, as much care is now taken in the selection of these chairmen as in the choice of our President of the Association, for in reality the officers are to be recruited from the ranks of the former. And after all, the real strength of the Association should rest in its capability for doing scientific work. This certainly tends to make it attractive to the workers in the profession, and will do a great deal towards bringing together a larger number of first-class men.

At the last meeting the sections were better attended than at any previous time within our recollection. This was not only explained by the care exercised on the part of the Committee of Arrangements, in having rooms for the respective meetings conveniently arranged, but by a desire which the profession has for scientific improvement, and by a disposition which it always evinces to profit by opportunities whenever they are offered. There was no lack of material for discussion at the different sections, and in the main the material was good. That there were exceptions to be taken to some of the papers every one present at these sessions is willing to admit. The fact that any paper of indifferent merit should have been allowed to come before the sections is an argument in favor of the adoption of any reasonable plan to prevent such a thing in future. We have already a starting-point to some proper regulation in this matter in the chairmen of these Associations, whose duty it is to see that proper papers only are presented, and who are empowered to solicit contributions from representative men all over the country. But such a plan followed out too absolutely would be unfair to many who might not be invited, but who might nevertheless have some valuable information to contribute. That is to say, those gentlemen who had been authoritatively invited would have the preference over those who were not so favored, and would inevitably crowd the latter out. In view of this difficulty, it strikes us that it would be eminently proper to vest the authority of the selection of papers to be presented in a committee, whose duty it should also be to decide upon the time to be occupied by each author, so that all could have some sort of a hearing. This is the work of a business committee of the Medical Society of this State, and has always been performed to the satisfaction of every one who has any subject to present or any special communication to make. If each section could have such a business committee all the really good papers could be read, either as a whole or in abstract, and much valuable time saved by the rejection of all those articles which have no practical bearing or scientific interest.

The regular publication each day of the reports of the sections could not be made as promised at the last meeting, but in its stead very accurate accounts of the meeting were furnished by the Detroit press. And after all, this is probably the only way that the reports can be satisfactorily made, without saddling the Committee of Arrangements with a more than onerous task, and without incurring a good deal of extra expense to the Association. When the reports appear in the daily papers they are always prompt, and readily accessible to all the members. The only improvement we would suggest would be, that one of the leading papers should be selected by the Committee of Arrangements as the official organ, with the understanding that everything in the shape of a report of the proceedings of the Association in the section should first receive the sanction of said committee before it should be published. This would remove any objections which might be urged against individual advertising.

The selection of a President of the Association for the coming year will be upon a comparatively new plan. In accordance with previous instructions, the State Societies, in selecting their delegates, head their list with the one who is to be member of the Nominating Committee. The majority, if not all, of the members of the Nominating Committee so selected are good men, who will doubtless be prepared to act independently. There is no doubt that the selection of President will be made from this State—either from New York city or from Rochester. From present appearances, and from what we know of the desires of the majority of the delegation, the gentleman from the latter city has the best chance. In any event, however, the choice will be a good one.

And now, in conclusion, speaking of the social element of the meeting, we cannot say too much in prospective. The surroundings of Louisville are the most beautiful in the country, and the inhabitants of that city have a reputation for hospitality which is unequalled anywhere. We have no doubt that social entertainments will be abundant, but of all that can be promised, none can, in our opinion, equal in interest and enjoyment a visit to the Mammoth Cave, to which we understand the members of the Association are to be invited by the Committee of Arrangements.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 15, 1875.

DR. S. S. PURPLE, PRESIDENT, in the Chair.

THE RELATION OF THE URINE TO DISEASES OF THE SKIN.

DR. L. D. BULKLEY read a paper upon the above subject, in which he illustrated the application of physiological chemistry and chemical pathology to the study of diseases of the skin. Many of these are supposed to be entirely local, others partly nervous, and still others dependent upon dyscrasia. How far these diseases are dependent upon deranged blood-current it is impossible to say, but it is highly probable that such derangements, indicated by fever developments during their continuance, greatly aggravate their symptoms. His remarks were chiefly made upon eczema, acne, psoriasis, urticaria, ichthyosis, and purpura; and with the view that the urine is an index of the blood state. That skin diseases of this nature are of constitutional origin is not a new matter; but for a long time it has engaged the attention of observers, particularly of the French school, and it is to them that we are indebted for knowledge upon what is called the arthritic diathesis. The application of this diathesis, however, has been too limited upon the one hand and too positive upon the other.

The physiological relation between the skin and kidneys has been long recognized, such as the coexistence of a dry, harsh skin with kidney disease, etc.; and we may well expect that there will be some changes of the blood in diseases of the integuments, and that the kidneys will show these relations in a definite manner through the urine. His experience had verified such conclusions, and had taught him that there is a close relation between the kidneys, and secretions of the body, and the state of the skin.

With regard to the changes observed in the urine, in the course of febrile affections, he was of the opinion that our present knowledge of the nature of fever is too limited to enable us to decide whether the alterations in the urine are the result of the febrile state or not, and therefore he included the febrile exanthemata in the present consideration.

His analysis of the urinary secretions began in 1867, and has included 535 examinations made of the urine from 161 patients. A portion of these examinations were made by his assistants, under his direction, but personal observations were made and recorded in 253 analyses from 79 patients. These were confined mostly to diseases distributed as follows: eczema, 33; acne, 15; psoriasis, 8; pruritis, 6; miscellaneous, 17. He based the changes which are found in eczematous patients upon 113 observations, and divided them into two classes: 1. Those indicating acid dyspepsia, with varying quantity and specific gravity of the urine; there may be persistent, abnormal acidity, with high specific gravity. 2. Those in which there is a uric or lithic acid diathesis; when a chronic lithæmia exists; or when the urine is not only acid, but almost, if not always, deposits urate, or free uric acid.

In *acne* his own observations alone were given, and they were, that the urine in this affection is usually acid; average specific gravity, 1023¼; and the urinary changes are more commonly those of dyspepsia, including urates, uric acid, etc., and the presence of an abnormal amount of phosphates. The observations made and reported, in the main, corroborated those that have been given by Garrod, Bence Jones, Prout, Fox, Wilson, Murchison, Bamberger, Simon, Heller, Martin, Johnson, Schlossberger, Marcet and others. He regarded the urine as a most important element in the study of dermatology, for in not one of the skin diseases considered was the urine found normal, and in many instances the pathological changes were clear, and immediately involved important considerations in treatment.

The association of urinary derangement with diseases of the skin was regarded as an indication of systemic disturbance, and it is useless to use remedies while these conditions are present. The results of therapeutics also indicated a close connection between digestive derangements and skin diseases, hence he could not subscribe to the doctrine that they are chiefly of local origin, but that many of them are of constitutional origin, and that our therapeutics should be governed accordingly.

DR. W. H. DRAPER remarked at some length upon the theories presented to the profession some twenty years ago, by Bence Jones and Garrod, relative to the changes that take place in the carbonaceous and nitrogenous elements which are introduced into the system through the food, and thought that a careful consideration of these should enter largely into our study of tegumentary lesions and their manifestations.

He did not think that the urinary changes seen in the course of the exanthematous fevers were anything more than those dependent upon the fever itself.

DR. R. W. TAYLOR was of the opinion that lesions of the skin could not, in all cases, be explained by the condition of the urinary secretion. He regarded the effect of the German teaching as beneficial in modifying the doctrines advanced by French observers under the name of various diatheses, to which it was supposed all skin diseases were due. He also regarded these diatheses as summed up in "errors of assimilation," referred to by Dr. Draper; also that English and American physicians have gone still further and placed this question upon a scientific basis; and also, that when we shall combine our observations in this direction with those made by the Germans, we shall have arrived very nearly at the truth of the matter. The urine will give therapeutical indications of value, but these cannot with safety be regarded as the only indications; for the skin may, and is likely to undergo inflammatory changes without any diathesis at the root of it, and hence it is that we should give credit to the Germans for their observations in this direction. It is not well, however, to carry this view to an extreme, but we should take into consideration, while studying these lesions, the fact that the skin has an inherent ability to undergo inflammation independent of any constitutional cause.

NEW YORK MEDICAL AND LIBRARY JOURNAL ASSOCIATION.

Stated Meeting, April 23, 1875.

Dr. E. R. Peaslee, President, in the Chair.

ON OPIUM POISONING.

The paper read by Dr. Andrew H. Smith upon this subject was confined chiefly to the consideration of the effects of the drug, which shorten the life of the patient or cause solicitude to the practitioner. In some cases the symptoms of themselves are insufficient to make an absolute diagnosis, yet they are generally so distinctly marked and peculiar that, with the history, if that can be obtained, they leave but little room for error in this direction. The first effect of the drug is to produce more or less stimulation or excitement, which is followed by giddiness and a sense of oppression, and soon by extreme drowsiness. At this stage nausea and vomiting may occur. If the patient is permitted to sleep, it deepens into a profound unconsciousness, the lips and face become more or less cyanosed, the breathing becomes stertorous—in short, the patient falls into a condition indicating the advanced stages of opium poisoning. The pulse, which at first may have been bounding, now becomes slow and full, but later on small, feeble, and thready. The pupils become closely contracted and insensible to light, deglutition ceases, mucus accumulates in the air-passages, and death takes place from asphyxia. Convulsions may occur, especially in children. The intellect is usually almost completely overpowered.

One of the most constant symptoms is contraction of the pupil, and this is due to the effect of the drug upon the nerve centres which govern its movements.

This symptom is of great value. The contraction is usually symmetrical, and in this respect differs from that induced by irritation of the membranes of the brain, in which case the pupil seldom contracts equally. It sometimes happens, however, that the pupil contracts unequally in opium poisoning, so this symptom should not be relied upon too absolutely in making out a diagnosis, and should not be accepted as diagnostic unless there are other symptoms to sustain it. It is to be borne in mind that in the last stage the pupils generally become widely dilated.

The respiration usually diminishes in frequency. The general opinion is that opium destroys life by interfering with this function, and it is the effect which the drug has upon the respiration that has been held as a criterion in deciding whether danger is present or not while administering opium in the treatment of disease, especially peritonitis. The rule has been established by Prof. Alonzo Clark, and has been followed by the profession in general, that the opium is to be continued until the respirations are brought down to twelve to the minute, unless the important symptoms of the case are relieved before this point is reached; but when this point is reached in any case the remedy is to be discontinued, except in such doses as are just sufficient to hold the respiration.

It must be borne in mind, however, and this is a point of great importance, that the most dangerous narcotism may be present while respiration is going on at or near the normal rate. The fact that such cases can occur renders it absolutely necessary not to rely upon the respiration alone as a criterion to guide us in the administration of the drug.

The contraction of the pupil and the general condition of the patient should serve to place the practitioner upon his guard, although the respiration may be only slightly affected. The changes which occur in the pulse are more tardy in making their appearance than are the corresponding changes in respiration. *Post-mortem* appearances after opium poisoning are almost negative. If the opium has been taken in a liquid form there are seldom any traces of it to be found, but if taken in a solid form the opium itself may be seen. The alcohol in laudanum, if that is the preparation used, may cause some hyperæmia of the mucous membrane of the stomach. The lungs are sometimes found engorged, as well as the right side of the heart.

Extravasations of blood in the brain are rare. There are no specific lesions left by opium poisoning.

Diagnosis of opium poisoning from *apoplexy* is sometimes difficult, especially in those cases in which the patient is found in a comatose condition, and no history can be obtained. In a large proportion of cases the two conditions may be distinguished by means of the following symptoms: In apoplexy the pupils are rarely contracted equally; in opium poisoning almost always contracted equally. In apoplexy there is no possibility of arousing the patient, but you can usually induce reflex movements. In opium poisoning the patient can generally be aroused for a moment, but reflex movements cannot ordinarily be induced. In apoplexy, if the patient is carefully watched, and any movements occur, it will be seen that they are restricted to one side of the body; and if no movements are made, there is present a condition of relaxation affecting one side, which can generally be easily recognized.

In apoplexy the breathing is commonly stertorous, while in opium poisoning it is rarely stertorous. In apoplexy pulsation in the carotids can be seen, while in poisoning from opium these are not observed. These are the more prominent symptoms by which the two conditions can be distinguished. In many cases the opium can be detected in the breath.

Uræmic coma sometimes makes its appearance without preceding dropsy, and may look like opium poisoning; but it lacks the characteristic pupil, and the urine will be found to contain albumen or casts, or both.

Alcoholic intoxication is a condition that must be separated from opium poisoning. In this case the pupils are not contracted, and the alcohol can generally be recognized in the breath. The drunken man, when aroused, begins to babble incoherently, while the man suffering from opium poisoning at once lapses into his sleep again. The two conditions may be associated, and then it becomes a case difficult of diagnosis. Prognosis is extremely favorable if treatment is properly employed. He had rescued one patient in whom the respirations went as low as one in two minutes. Patients have been restored who have taken five, six, and eight ounces of laudanum. While there is any sign of life, efforts at resuscitation should not be relaxed. Opium is seldom administered with felonious intent. It could scarcely be given without the knowledge of the person on account of its bitter taste, and its effects are so obvious that the fact would be at once recognized by the victim himself. A person in severe pain, or laboring under great cerebral excitement, will bear a much larger amount of the drug than when the system is in its normal condition; but when the pain and wakefulness are overcome, the system is deprived of the protection thus afforded, and now, if more of the drug is given, alarming and perhaps fatal narcosis may be induced. It is in this way that the sudden narcotism is to be explained which occasionally supervenes when only doses of ordinary size are continued that have previously been tolerated without the development of any alarming symptoms. The system has lost its power of protection, and succumbs rapidly.

The treatment of opium poisoning consists in the evacuation of the stomach, the administration of such drugs as are supposed to have the power of modifying the effect of the poison, and the use of various agents to arouse the nervous system, the respiration, the circulation, and the temperature.

As emetics, mustard, alum, sulphate of zinc, and sulphate of copper may be used. Tartar emetic should never be employed, and ipecac is too slow. When a considerable degree of nausea exists sudden pressure upon the epigastrium may induce vomiting. Emetics are apt to fail when the narcotism is extreme, and then the stomach-pump may be used. In absence of this instrument a piece of ordinary india-rubber tubing may be used, after the manner of a syphon. For arousing the patient various measures may be resorted to already well known, but electricity is by far the most serviceable when a battery is at hand. The faradic current, and perhaps very powerful, should be employed, and it may be applied to all parts of the body. The weakest current should be used that will provoke muscular contraction. Of the means for restoring respiration, artificial respiration and electricity are the most important. The electricity may be applied to the phrenic nerves, an inspiration induced, and this repeated fifteen or sixteen times a minute. The negative pole always excites a stronger action than the positive, and metallic electrodes are much more efficient than sponges. By means of this agent some desperate cases have been saved when all other means have failed. It must be borne in mind, however, that muscular contraction can be exhausted by too free application of the battery, and such exhaustion must not be mistaken for symptoms of increasing narcotism. Oxygen gas is a very efficient agent. When the respiration is very slow artificial respiration must be kept up at the same time the gas is administered, in order to get sufficient amount into the lungs to act upon the blood. It stimulates the capillary circulation and thereby aids in relieving the right side of the heart. We have no chemical antidote for opium; nor have we any complete physiological antidote, but we have two agents which may be used with great benefit. These are coffee and belladonna. It is only within the last fifteen or twenty years that any practical results have come from the use of belladonna, and regarding its influence, how it acts, when it is to be administered, and when discontinued, etc., he quoted quite extensively from the paper of Dr. Mary Putnam Jacobi, published in THE MEDICAL RECORD in the year 1873, in which she forestalled the report of a special commission appointed in Great Britain, with Dr. Hughs Bennett at its head. Attempts have been made to fix the amount of atropine sufficient to counteract the effects of the opium, but for obvious reasons this cannot be done. We must be guided by the degree of narcotism present, and can only judge of the amount of atropine to be given by continuing it in tentative doses until the pupils begin to dilate. It is commonly used hypodermically in from $\frac{1}{30}$ to $\frac{1}{40}$ grain doses. The danger has not passed in a case of opium poisoning when consciousness has been restored, but the liability to relapse should make the physician watchful until reaction is fully established, and circulation restored to something near its normal steadiness and volume. But even then there is ulterior danger from consecutive pneumonia, consequently great care should be exercised and every precaution taken to prevent such a sequel. Three cases were reported which illustrated the fact that dangerous narcotism could be induced, while the respiration remained nearly of normal frequency.

In one case the respirations stood at twenty to the minute, and yet the patient was dangerously narcotized. (It was not stated whether there was any evidence of kidney disease or not in these cases.)

A third case was reported in which dangerous narcotism was induced by applying a solution of morphine to a wrist-joint which was the seat of synovitis. The skin was intact. Several cases were reported in which the symptoms of danger were extreme, but the patients had been restored by resorting to the means already mentioned.

DR. BAYLIS reported a remarkable case in which the patient, a gentleman 40 years of age, had suffered from two attacks of pleuritis. The general condition produced by these attacks was one of restricted lung action and labored heart action. Within three and a half hours he took 150 ♏ of Magendie's solution (Squibb's), but was not overpowered until six and a half hours after taking it. Profound somnolence continued for eighteen hours; partial somnolence between two and a half and three and a half hours, but he did not recover his mental faculties until twenty-two or three hours after taking the drug. When he did recover his mental faculties he was irritable and cross, which was entirely contrary to his usual disposition. In this case there was pulsation of the carotids. The treatment consisted in the use of atropine, electricity, oxygen gas, injections of beef-tea and brandy, guided with regard to frequency according to the condition of the pulse, external warmth, rubbing, etc., systematically and persistently continued. His respirations were at one time three or four to the minute, skin cold and bathed with perspiration, face cyanosed, etc. Recovery took place without subsequent accident.

DR. JOEL FOSTER related a case in which a patient of his, a young man, bought twenty-five grains of sulphate of morphine, and, thinking to have a pleasant time, made a pint of exceedingly strong decoction of coffee, put all the morphine into it, and drank the whole. He went to bed expecting soon to go to sleep, but instead of that he did not sleep at all, but became very crazy. His face was flushed, and he did not become cyanosed. In about twenty-four hours he was entirely beyond the influence of the drug, and felt as well as ordinary, except the debility, and is now living. The doctor was of the opinion that the story of the boy was true with regard to the amount taken, and also that it was a good article, for it came from a reliable drug-store. The case occurred about twenty years ago.

Dr. Rogers wished some gentleman to explain the cause of the mental perversion alluded to by Dr. Baylis in his case.

Dr. Smith replied that he thought it to be due to the atropine; that it was the result of atropine poisoning rather than the opium poisoning.

Dr. Sell referred to some cases in which very small doses of opium have produced fatal results. These cases are reported in the *Physician and Pharmaceutist*. He opposed the use of opium in any form in the treatment of diseases of children.

Dr. Peaslee referred to a case where a young girl had taken half a bottle of morphine; probably thirty grains, with suicidal intentions. This patient was marched to and fro, flagellated, and had about one pint of strong coffee, and in about six hours, she began to manifest some consciousness. Her breathing was stertorous, and withal it was a desperate case. It occurred a good many years ago, and before the battery and atropine had come into general use. With regard to the use of opium in the treatment of children, he always opposed the use of *laudanum or morphine*, before the child was, perhaps, one or two years old; but he did not exactly agree with Dr. Sell, that opium should never be administered.

Dr. Blake remarked that he had already reported a case of aconite poisoning in which a congested condition of the kidney was found, and he was of the opinion that it is not unreasonable to expect a similar condition of the kidneys in opium poisoning. It has been said of late that it is well to examine the urine in every case. In a case of opium poisoning which he had reported, where recovery took place, all symptoms of narcosis seemed to pass away, and then a state of coma came on which was difficult for him to understand. It seemed to be prolonged to beyond the effect of the poison, and he now believes it was from the effect of renal congestion. (It is a fact of which, perhaps, every practitioner is cognizant, that a certain number of patients, while coming under the influence of opium, for instance in the treatment of peritonitis, suffer from suppression of urine more or less marked.)

Dr. Hubbard referred to a case of opium poisoning in which the alarming symptoms manifested themselves twelve hours after taking ♏xx. of Magendie's solution of morphine hypodermically at two doses, half an hour apart.

The respirations were reduced to eight to the minute, deglutition was impossible, the pupils were contracted, and the sphincters relaxed, etc. As a result of consultation, ⅛ of a grain of sulphate of atropia was administered hypodermically, and in fifteen minutes the pupils were widely dilated. Respiration soon began to increase in frequency, and in about an hour he left the patient doing very well, but never expected to see him alive, supposing that the atropine would kill him. The next day, however, at 11 o'clock, he found him comparatively comfortable. He died four or five days after of pleuro-pneumonia, but the doctor was of the opinion that the influence of the opium had entirely passed away, and could not be reckoned as an immediate factor in producing the death of the patient.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 18, 1875, *to April* 24, 1875.

McCormick, Chas., Surgeon.—Granted leave of absence for four months, with permission to go beyond sea. S. O. 69, A. G. O., April 19, 1875.

Hammond, J. F., Surgeon.—Granted leave of absence for one month on surgeon's certificate of disability. S. O. 67, A. G. O., April 15, 1875.

Moore, Jno., Surgeon.—Assigned to duty as Medical Director of the Department. G. O. 5, Department of Texas, April 13, 1875.

Jaquett, G. P., Assistant Surgeon.—Assigned to temporary duty with Geologist's escort to the Black Hills. S. O. 44, Department of the Platte, April 13, 1875.

Kinsman, J. H., Assistant Surgeon.—Leave of absence extended one month. S. O. 62, Department of Dakota, April 15, 1875.

White, R. H., Assistant Surgeon.—Leave of absence extended six months, with permission to go beyond sea. S. O. 67, c. s., A. G. O.

Elbrey, F. W., Assistant Surgeon.—Assigned to duty at Lebanon, Ky. S. O. 52, Department of the South, April 21, 1875.

Hoff, J. V. R., Assistant Surgeon.—Assigned to temporary duty at Fort Sanders, during temporary absence of Dr. Jaquett. S. O. 44, c. s., Department of the Platte.

Skinner, J. O., Assistant Surgeon.—Leave of absence extended one month. S. O. 69, A. G. O., April 19, 1875.

Medical Items and News.

Centenarians.—*The New York Times* of the 18th inst. publishes an interesting table, compiled by Dr. John T. Nagle, Deputy Registrar of Records of the Health Department of this city, which gives the names and conditions of ninety-eight centenarians, whose deaths have been reported to the Board of Health since 1864, and which we reproduce, since the question has lately been raised whether authenticated cases exist of persons who have attained the age of one hundred years.

Mary Nixon, born in Ireland in 1765, died in this city, Aug. 26, 1873. She was attended in her last illness by Dr. John H. Wilson, who stated that she died of softening of the brain, nervous exhaustion, and old age, her memory and eyesight having completely failed previous to her death.

Patrick White, born in Ireland in 1771, emigrated to New York City in 1853, where he died, aged 102 years, July 25, 1873. Dr. J. R. MacGregor attended him in his last illness. Mr. White was married between the ages of forty-five and fifty. His occupation in Ireland was that of a farmer, and his diet while there consisted principally, according to his own statement, of potatoes and milk, with an addition sometimes of fish and eggs. He did not eat meat more than once or twice a week, and oftentimes not more than once a month. He drank liquor moderately, and after his arrival in this country performed no hard work.

Name.	Date of Death.	Year.	Age.			Condition.	Nativity.	How long a resident of this City.	Color.	Occupation.	Cause of Death.
			Years.	Months.	Days.						
Hulda Wood	Jan. 9	1864	100	3			New Jersey		Colored		Senile asthenia.
Bridget O'Brien	Jan. 8	1864	100				Ireland		White		Pneumonia.
Ira Cromwell	March 16	1864	104	6			Baltimore, Md		Colored		Senile asthenia.
Mary Buckley	March 21	1864	105				New York		Colored		Erysipelas.
Minte Thomas	May 27	1864	103				Maryland		Colored		Senile asthenia.
Elizabeth Price	May 31	1864	100				N. Carolina		Colored		Senile asthenia.
Leah Cropsie	Jan. 17	1864	100				Virginia		Colored		Dropsy.
Isaac Daniels	June 28	1864	109				Bedford, N. Y.		White		Senile asthenia.
Ann Jackson	July 10	1864	100				S. Island, N.Y.		Colored		Senile asthenia.
Rachel Stafford	July 13	1864	102	6	21		New Jersey		White		Senile asthenia.
Isabella Cook	Sept. 7	1864	100				Virginia		Colored		Senile asthenia.
Rose Gilligan	Dec. 14	1864	103				Ireland		White		Senile asthenia.
Mrs. D. McKinney	Jan. 7	1865	100				New Jersey		Colored		Senile asthenia.
Johanna Waters	Feb. 4	1865	104				Ireland		White		Cancer.
Frances Davis	March 13	1865	100				New York		Colored		Senile asthenia.
Minerva Ellis	June 4	1865	105				Jamaica, W. I.		Colored		Senile asthenia.
Absalom Thornton	Aug. 9	1865	105	3	29		Ireland		White		Strang'd hernia.
Thomas Golden	Aug. 18	1865	104				Ireland		White		Senile asthenia.
Thomas McAnnally	Aug. 21	1865	101				Ireland		White		Senile asthenia.
Patrick Noonan	Oct. 6	1865	100	5			Ireland		White		Senile asthenia.
James Quinn	Nov. 30	1865	100	10	18		Ireland		White		Senile asthenia.
Mary McMahon	Jan. 13	1866	104				New York	Life	White		Senile asthenia.
William Daily	May 4	1866	106				Ireland		White		Senile asthenia.
Mary Ann Bastine	May 15	1866	118				New York	Life	Colored		Senile asthenia.
Mary Griffin	July 17	1866	100				Ireland		White		Senile asthenia.
Bridget Noonan	Aug. 1	1866	100				Ireland		White		Senile asthenia.
Margaret Farrel	Sept. 12	1866	100				Ireland		White		Senile asthenia.
Phyllis Bees	Dec. 7	1866	105				New York		White		Senile asthenia.
Christina Renfort	Dec. 18	1866	105			Single	France	35 years	White	Domestic	Senile asthenia.
Rebecca Ward	Feb. 10	1867	100			Widow	Scotland	67 years	White		Senile asthenia.
Margaret Harty	Jan. 6	1867	100				Ireland	17 years	White		Senile asthenia.
Emilie C. Lorenz	March 25	1867	103			Married	Germany	18 years	White		Senile asthenia.
Judy Green	May 13	1867	109			Widow	New York		Colored	Cook	do. and convulsions.
Margaret Terry	June 12	1868	100			Widow	Ireland	13 years	White		Senile asthenia.
Maria M. Pessinger	Feb. 29	1868	100	6	11	Widow	United States		White		Senile asthenia.
Ann Mary Brown	July 3	1868	103			Widow	United States		Colored		Tumor of breast.
Honora Hanlon	April 26	1868	108			Widow	Ireland	28 years	White		Senile asthenia.
Mary Collins	May 7	1869	100			Widow	Ireland	19 years	White		Senile asthenia.
Florence McCarty	Dec. 19	1869	100				Ireland	8 years	White		Senile asthenia.
Francis McLellan	Sept. 29	1869	100			Widower	Ireland		White	Laborer	Senile asthenia.
Hester Cropper	March 24	1869	102			Widow	Maryland		Colored		Senile asthenia.
Margaret Hutchins	Sept. 24	1869	102			Widow	New Jersey		Colored	Cook	Apoplexy.
Elizabeth Murray	May 24	1869	103			Widow	At sea	40 years	Colored	Cook	Inanition.
Phœbe Williams	July 29	1869	103			Widow	New York		Colored		Senile asthenia.
Sarah Conway	May 5	1870	100			Widow	Ireland	24 years	White		Senile asthenia.
Sophia Williams	April 10	1870	100				Virginia		White		Senile asthenia.
Johannah Sullivan	Nov. 10	1870	100	10		Widow	Ireland	40 years	White		Senile asthenia.
Lipman Kristeller	Nov. 19	1870	100	1	7	Married	Prussia	25 years	White		Bright's disease.
Mary Myers	Dec. 18	1870	100			Widowed	Ireland		White		Senile asthenia.
Daniel Collins	Nov. 20	1870	101	3		Widowed	Ireland	26 years	White	Laborer	Senile asthenia.
Anne Ryan	Jan. 3	1870	102			Widowed	Ireland	50 years	White		Senile asthenia.
Kate Eagan	Sept. 11	1870	102			Widowed	Ireland	17 years	White		Senile asthenia.
Henry O'Flaherty	April 41	1870	103			Widowed	Ireland	23 years	White	Tailor	Senile asthenia.
Ellen Baird	Feb. 28	1871	101		14	Widowed	Ireland	35 years	White		Senile asthenia.
Felix Boylan	March 12	1871	108	10	12	Widowed	Ireland	24 years	White		Apoplexy.
Bridget Campbell	March 29	1871	100			Widowed	Ireland	15 years	White		Senile asthenia.
Cecelia Dixon	Jan. 23	1871	106			Married	West Indies	50 years	Colored		Phthisis pulmon.
James Daley	April 16	1871	100			Widowed	Ireland	22 years	White		Apoplexy.
Ann Flanagan	June 2	1871	100			Widowed	Ireland		White		Acute dysentery.
Bridget Carroll	Nov. 6	1871	106			Widowed	Ireland	7 years	White		Senile asthenia.
Julia Glynn	Nov. 28	1871	102			Widowed	Ireland	30 years	White		Senile asthenia.
Denis Haverty	Aug. 8	1871	103			Widowed	Ireland	20 years	White		Senile asthenia.
Sarah Slane	April 8	1871	103			Single	Ireland	60 years	White		Paralysis.
Margaret Morgan	Dec. 21	1871	105			Widowed	Ireland	6 years	White		Senile asthenia.
Ellen Moran	Dec. 29	1871	100			Widowed	Ireland	23 years	White		Senile asthenia.
Ann Leahy	May 20	1871	100			Widowed	Ireland	20 years	White		Pneumonia.
Daniel Sullivan	Jan. 4	1872	103			Married	Ireland	22 years	White		Ulcer of leg.
Mary Richmond	Feb. 18	1872	106			Widow	Ireland	25 years	White		Senile asthenia.
Mathew Lyon	March 8	1872	103			Widow	Ireland	56 years	White	Merchant	Epistasis.
Phoebe Scott	April 29	1872	100			Widow	Africa	35 years	Colored	Nurse	Senile asthenia.
Ellen Brown	July 22	1872	100			Widow	Ireland	25 years	White		Disease of the heart.
Ellen Burke	Oct. 1	1872	103			Widow	Ireland	27 years	White		Senile asthenia.
Alice Riley	Oct. 7	1872	103			Widow	Ireland	8 years	White		Senile asthenia.
Rose Rourke	Oct. 23	1872	100			Widow	Ireland	27 years	White		Diarrhœa.
Nancy Lent	Nov. 17	1872	100	4	14	Widow	United States	13 years	Colored	Laundress	Hemiplegia.
Catherine Cahill	Dec. 26	1872	105				Ireland	20 years	White		Senile asthenia.
Mary McGrath	March 14	1873	100			Widow	Ireland	23 years	White		Senile asthenia.
Mary Monaghan	March 22	1873	102			Widow	Ireland	25 years	White		Senile asthenia.
Mary Tobin	April 1	1873	100			Married	Ireland	33 years	White	Housework	Dementia.
Thomas Craig	April 26	1873	102			Married	Ireland	40 years	White		Senile asthenia.
Alexander Scott	Nov. 23	1873	100			Widow	Delaware	28 years	Colored		Senile asthenia.
Mary Nixon	Aug. 26	1873	108			Widow	Ireland	25 years	White	Domestic	Softening of brain.
Patrick White	July 25	1873	102			Widowed	Ireland	19 years	White	Farmer	Senile asthenia.
James Reilly	Jan. 28	1874	106				Ireland	32 years	White		Senile asthenia.
William Louis	Feb. 4	1874	106	2	10	Married	France	26 years	White	Merchant	Pneumonia.
Margaret Cloonan, or Cronan	March 17	1874	103			Widow	Ireland	25 years	White		Chronic bronchitis.
Catharine Callahan	April 6	1874	104			Widow	Ireland	45 years	White		Pneumonia.
Mary Bliss	July 30	1874	108			Widow		9 years	White		Senile asthenia.
Molly Sheridan	Sept. 6	1874	100			Widow	Ireland	46 years	White		Diarrhœa.
Ellen Lyons	Aug. 31	1874	113			Widow	Ireland	42 years	White		Senile asthenia.
Jacob Kissam	Oct. 17	1874	133			Widowed	New York		Colored	Laborer	Paralysis.

Thomas Craig, born in the County of Leitrim, Ireland, in 1771, came to the United States twenty-nine years previous to his death. His occupation in Ireland was that of a wheelwright and carpenter, and in this country he became a porter. He was twice married, but had no children. About a year previous to his death he was injured by falling from a car, and was more or less childish from that time until he expired, at over 100 years of age. His wife is still alive, and is aged eighty-three years.

Hannah Ruland, *née* Wilson, born Aug. 29, 1774, at Oyster Bay, Long Island, of Scotch parents, died in this city, October 26, 1873. She was married at the age of sixteen years, and was the mother of ten children. Her mother was married at the age of thirteen years and six months, and gave birth to sixteen children, eight girls and eight boys, all of them distinguished for remarkable longevity and robust constitutions. The youngest child was over fifty years old when the first death occurred in the family, and one of the male children nearly reached his one hundredth year. Mrs. Ruland performed her household duties with punctuality, and her longevity was attributed in a great degree to certain habits to which she rigidly adhered during lifetime—one of them being that of retiring to bed at sunset and rising with the sun. She always insisted on having eight or nine hours' sleep, and at regular hours; partook of plain and substantial food, with tea and coffee. She never wore corsets, or indulged in alcoholic liquors, and was robust and muscular. Her height was 5 feet 4½ inches.

Christopher Rush, colored, born in Craven County, North Carolina, in 1777, died in this city of senile asthenia July 16, 1873. He was brought to this city a slave in 1798, and gained his freedom about the year 1812. He joined the African M. E. Church in 1803, and was licensed to preach in 1815, ordained in 1822, and elected Bishop of the church in 1828. He lost his eyesight in 1859, and in 1868 became subject to fits at intervals of from one week to two months, which greatly impaired his memory, and continued until his death. Frugality in his earlier years enabled him to save enough money to make him independent, so that he lived comfortably in his old age. He was a hearty eater, very fond of coffee, of which he drank a great deal, and was an inveterate tobacco smoker. He was naturally robust and healthy, and drank no liquor stronger than cider.

Alexander Scott, colored, born in Delaware in 1775, died in this city of senile asthenia at the age of 100 years, at the Colored Home, to which he had been admitted in October, 1871. His father's death was caused by the rupture of a blood-vessel, and his mother died of old age.

John McGibney, born in Ireland in 1776, died in this city, Jan. 11, 1873, of pleurisy. He came to this country in 1866, and was employed as a laborer, working occasionally until a few weeks before his death. He was of temperate habits, and during his lifetime his diet consisted of the humblest fare. He was muscular and of medium stature, and enjoyed excellent health until his last illness.

THE MAXIMUM DEATH-RATE DURING THE DAY.—In a recent number of the *Philadelphia Medical Times*, Dr, Behrens presents some statistics relative to the proportion of deaths at different hours of the day. These statistics suggest a field of investigation that hitherto has been but little explored, but which is none the less an important one. Were it known that dissolutions were more liable to take place at certain of these periods than at others, the inference would be plain that when our patients approach the extremity of disease our efforts should be redoubled to carry them over the critical periods.

Dr. Behrens has compiled the subjoined table from over a thousand mortal cases which occurred in the Philadelphia Hospital in the course of fifteen months. Therein is shown the proportion of deaths during each period of one, two, three, four, six and twelve hours in the twenty-four.

HOUR.	I	II	III	IV	V	VI	TOTAL.
	In each hour.	In each 2 hours.	In each 3 hours.	In each 4 hours.	In each 6 hours.	In each 12 hours.	
Midnight							
1 A.M.	40						
2 "	48	88					
3 "	39		127				
4 "	39	76		164			
5 "	59						
6 "	50	109	146		273		
7 "	82						
8 "	65	146		255			
9 "	52		198				
10 "	59	111					
11 "	38						
Noon	46	84	143	195	341	614	
1 P.M.	45						
2 "	37	82					
3 "	39		121				
4 "	53	92		174			
5 "	32						
6 "	48	80	133		254		
7 "	47						
8 "	35	82		162			
9 "	34		116				
10 "	36	70					
11 "	28						
12 "	25	53	89	123	205	459	1073

We see that in these 1073 cases the maximum death-rate was 82, and occurred between the hours of 6 and 7 in the morning; the minimum was 25, and was between 11 and 12 P.M. We conclude from this table that mortality increases suddenly at midnight and gradually rises until about nine in the morning, when it again declines more or less regularly until it reaches its minimum, a little before midnight.

The full explanation of these variations awaits further inquiry. Dr. Behrens, however, mentions two causes which he thinks are especially important in this connection, namely: "nursing and the solar influence." The influence of the sun upon vital processes, although the precise nature of their relations to each other is yet obscure, is an undisputed fact, and the coincidence that the period of greatest mortality corresponds with the time at which the solar influence has been longest withdrawn, is, to say the least, significant. But it is remarked that the decrease in the death-rate continues for some time after sunset, and this would appear not to accord with the proposed theory. This, however, is explained by reference to the fact that "the effects of the sun do not disappear with it," and by supposing that the absence of the sun's rays is compensated in some measure by the extra attention paid to the patient's comfort as night approaches, and to the soothing influences of quiet and security from disturbance.

Again, in the early morning hours, after a night of watching, the vigilance of the attendants is very apt to be relaxed. The measures that have been administered at regular intervals during the night are more liable as dawn approaches and the watchers become wearied and sleepy, to be neglected, and, it may be, the spark of life is extinguished, when, possibly, a little nourishment or a few drops of stimulus might have averted the impending danger.—*Phil. Med. Times*, April 3, 1875.

Gastrotomy for Stricture of the Œsophagus—According to the *Lancet* of March 27th, there was at that time in St. Thomas's Hospital a man upon whom Mr. Sydney Jones had performed the operation of gastrotomy. Three weeks had then elapsed and the fistulous opening was complete. All the sutures had been removed and the patient was sitting up. His pulse was 80, temperature normal, and he showed no bad symptoms so far as the gastrotomy was concerned. Fuller details of the case are promised.

Dr. Alfred N. Beach, Member of Assembly from New York city, has introduced in Assembly an act to amend chapter four hundred and thirty-six of the laws of 1874, entitled "An Act to Regulate the Practice of Medicine and Surgery in the State of New York," passed May 11, 1874. Dr. Beach's amendment does not differ very markedly from the one published by us a short time since, being somewhat shorter but having the same general features.

Successful Cæsarean Section in a Case of Uterine Fibroids.—Dr. Cazin has had occasion to practise the Cæsarean operation in a case of uterine fibroids, and has had the good fortune to save the mother and child. He operated on a woman, aged thirty-nine, in whom, towards the sixth month of pregnancy, fibroid tumors were recognized in the posterior and inferior wall of the uterus. Labor set in the seventh month; after four days of pains the membranes ruptured, and a hand escaped, the child being still alive; but as it could not be extracted, either by forceps or by version, recourse was had to the Cæsarean operation. The most minute precautions were taken; there were hemorrhage and syncope, inertia of the uterus, distention of the belly to such a degree that it became necessary to puncture the bowel to give exit to the gas; there was vesical paralysis, and an abscess formed between the uterus and the abdominal wall. In spite of these complications the patient got well, and the child, baptized Cæsar, throve. It has since been ascertained that the fibroids are diminishing in size.—*Gaz. Méd. de Paris.*

New York State Board of Medical Examiners.—The Eclectic Board of Medical Examiners, appointed by the Regents of the University, is as follows:—Dr. J. Edwin Danielson, of Little Falls; Dr. Alexander Wilder, of New York; Dr. Robert Hamilton, of Saratoga Springs; Dr. Hermann Beokowitz, of Brooklyn; Dr. D. W. White, of Ithaca; Dr. Robert S. Newton, of New York, and Dr. Orin Davis, of Attica.

Centennial Medical Commission, Philadelphia.—The Committee of fifteen of the Philadelphia County Medical Society have selected the following officers to take charge of the medical representation at the Centennial Celebration in 1876:—*President*, Samuel D. Gross, M.D., LL.D., D.C.L., Oxon.; *Vice-Presidents*, W. S. W. Ruschenberger, M.D., U. S. N., Alfred Stillé, M.D.; *Secretary*, William B. Atkinson, M.D.; *American Corresponding Secretary*, Daniel G. Brinton, M.D.; *Foreign Corresponding Secretary*, Richard J. Dunglison, M.D.; *Treasurer*, Caspar Wister, M.D.

Executive Committee.—Washington L. Atlee, M.D.; D. Hayes Agnew, M.D.; Robert Burns, M.D.; David Burpee, M.D.; Isaac L. Eshleman, M.D.; Albert Fricke, M.D.; Nathan L. Hatfield, M.D.; H. Lenox Hodge, M.D.; Wm. H. Pancoast, M.D.; Robert E. Rogers, M.D.; J. G. Steller, M.D.; Laurence Turnbull, M.D.; Edward Wallace, M.D.

At the session of the Commission held April 19, the following committees were appointed:—*On Hall*—Drs. W. H. Ford, A. Fricke, R. J. Dunglison, Levi Cutis, Edward Wallace. *On Correspondence*—Drs. W. B. Atkinson, D. G. Brinton, R. J. Dunglison. *On Finance*—Drs. Caspar Wister, J. G. Steller, D. Burpee. *On Museum*—Drs. Joseph Leidy, J. Solis Cohen, T. G. Morton, Robert E. Rogers, Charles K. Mills. *On Arrangements, etc.*—Drs. Washington L. Atlee, Robert Burns, Wm. Pepper, W. H. Pancoast, L. Turnbull, J. S. Eshleman, Emil Fischer. *On Publication*—Dr. F. G. Smith, the three Secretaries and the Treasurer. *On Entertainment*—To consist of the whole Executive Committee. *On Addresses and Business of Sections*—Drs. J. H. Packard, D. Hayes Agnew, H. Lenox Hodge, N. L. Hatfield, A. C. Bourneville. It was agreed that all American delegates to the International Medical Congress shall pay five dollars on registering, to aid in defraying the expenses of publication. That a dinner shall be arranged for, and each delegate be charged five dollars for a dinner ticket. Foreign gentlemen in each case to be regarded as guests. The following arrangements were made for addresses: *On Medicine and Medical Progress in the United States*—Prof. Austin Flint, Sr., of New York. *On Surgery*—Prof. Paul F. Eve, of Nashville, Tenn. *On Obstetrics*—Prof. Theophilus Parvin, of Indianapolis, Ind. *On Materia Medica and Therapeutics*—Prof. Alfred Stillé, of Philadelphia. *On Medical Jurisprudence and Toxicology*—Prof. Stanford Chaille, of New Orleans, La. *On Hygiene and Social Science*—Dr. Henry I. Bowditch, of Boston, Mass. *On Medical Biography*—Dr. Joseph M. Toner, of Washington, D. C. *On Medical Education and Medical Institutions*—Prof. N. S. Davis, of Chicago, Ill. *On Medical Literature*—Prof. L. P. Yandell, Sr., of Louisville, Ky. *On Mental Hygiene and Medicine*—Dr. John P. Gray, of Utica, N. Y. *On Physiology*—Prof. Leon S. Joynes, of Richmond, Va. *On Medical Chemistry and Pharmacy*—Dr. Wormley, of Cincinnati, Ohio.

Reduced Fare to Louisville, Ky.—Delegates who propose to attend the next meeting of the American Medical Association, to be held in Louisville, are offered reduced rates by the Erie, and Atlantic and Great Western route, provided any number of tickets exceeding fifteen can be purchased at one time. An excursion ticket over this road can be procured at a great reduction of the usual rate. Those who do not prefer to take advantage of a round trip ticket can have a proportionate reduction for a single trip. This road, as far as we are at present informed, is the only one which is inclined to be liberal to the delegates from New York attending the Louisville meeting. In order to arrive at Louisville in time on Tuesday morning, it will be necessary to make the start not later than Sunday evening at 7 o'clock. Tickets can be purchased and sleeping cars procured on application at the Erie R. R. office, 957 Broadway, cor. 23d street.

WEEKLY BULLETIN OF MEETINGS OF SOCIETIES.

Monday, May 3.—Medico-Chirurgical Soc.; Morrissania Med. Soc.; N. Y. Neurological Society; Path. Soc. of Brooklyn.

Tuesday, May 4.—N. Y. Obstetrical Society; East River Medical Assoc.; N. Y. Dermatological Soc.; District Medical Society for the County of Hudson, Jersey City. Facial Paralysis, by Dr. Lampson. American Medical Association at Louisville, Ky.

Thursday, May 6.—N. Y. Academy of Medicine.

Friday, May 7.—Medical Library and Journal Assoc.

Original Communications.

ON SOME OF THE ELEMENTS OF DIAGNOSIS IN THE DIFFERENT STAGES OF DISEASES OF THE HIP-JOINT.

By C. FAYETTE TAYLOR, M.D.

(Read before the New York Medical Library and Journal Association, April 16, 1875.)

The importance of an early and correct diagnosis of disease in the hip-joint must be apparent to all. But diagnosis implies much more than a recognition of existing disease. It embraces, or should embrace, such a careful analysis of the existing facts, as to resolve the condition into distinct and well-defined elements, which are separately comprehended, and which, being correctly interpreted, are the indications to which our treatment ought directly to respond.

Now, such a diagnosis is not to be evolved from one's "inner consciousness," nor is it to be arrived at through indefinite generalization. Of course there are stages and degrees of this disease which advertise it to the dullest comprehension and to the most careless observer. But to wait for a disease of such gravity to obtrude itself on one's notice is not the part of that scientific observation which seeks to anticipate disaster by searching out the evidences which precede and portend it. If these evidences are sometimes obscure and inferential, there is all the more reason for diligence and painstaking, and all the more honor for successfully anticipating the graver conditions which are sure to come.

An experience which has not been small, and an observation which has been as careful as I could make it, have brought me to these two general conclusions, viz.: 1st. The symptoms generally relied upon as diagnostic of disease of the hip-joint are worthless for all practical purposes of either anticipating the graver stages of the disease, or of affording indications for treatment. They pertain, for the most part, to the fully developed disease, and are therefore observed too late for the higher purposes of diagnosis; and 2d, the symptoms of impending danger to this joint exist, in the majority of cases, long before the time of actual danger has arrived, and it is possible—I might almost say it is *always* possible—to anticipate, by prompt and effective treatment, and to prevent, by cutting short the disease, the development of those symptoms which, at a later and less curable stage, are often relied on for evidence of the disease itself.

To be precise, let me say that I have no confidence in the fact of pain as a symptom from or through which we may justly draw conclusions of any definite value whatever, at any period of disease pertaining to the hip-joint. To those whose observation has been limited to painful stages of this disease, and who have witnessed the terrible sufferings of these patients, the above remark may excite surprise. But please remember that I am not denying the painfulness of this disease—there is none more painful; but I do deny that pain has any important diagnostic value. It is a symptom which varies more than any other in different individuals, and in different stages of the disease in the same individual. It does not always exist, and, when it does exist, it indicates nothing which is not better found out by more constant and more uniform indications. Therefore, as a necessary conclusion, I feel obliged to eliminate to a very large extent—not wholly, but to a very large extent—the patient's own impressions in regard to himself, and to make my deductions from evidences outside of his consciousness. I believe in the traumatic origin of disease of the hip-joint as the ordinary cause. I do not deny that there are cases of its idiopathic development.

Indeed, I feel confident that I have seen such cases. But it is not necessary, for our present purposes, to discuss the etiology of this disease further than to say that statistics demonstrate the traumatic causation in the large majority of cases, and we will confine our theme to this majority. Now, there are accidents of sufficient severity—blows, falls, slips, strains—to cause immediate pain, or painfulness following after a certain interval. But the mere fact of painfulness is nothing unless it be accompanied by other and more important signs. We may have muscular or hysterical hyperæsthesia (I use the word for want of a better), or painfulness quite as severe, with the patient quite as reluctant to submit to handling, developed by an accident when there is no disease of the joint whatever. But the most important fact, in this connection, is that we may have a dangerous amount of disease of the hip in any stage, and especially in the early stage, without any painfulness whatever. To wait for painfulness to be developed in a case of suspected hip-joint disease, where this symptom is absent, is simply to wait for that combination of circumstances which develops pain. This combination of circumstances may occur at any stage in the progress of the disease.

In some rare instances it may be practically absent during the entire course, from the first inception to ankylosis. But what I more particularly insist on is, that the fact of or the amount of painfulness is a very imperfect indication of the presence of or the extent of disease in this joint. To me, in my experience, the absence of pain, or, which is not always the same thing, its denial by the patient, indicates a graver condition than the presence of acute suffering.

To point my remarks by an illustration, let me relate the history of the following case:

T. C., of Chicago, Ill., aged five years, applied June 17th, 1872. The records are long and not all of them pertinent to our inquiry, and I only condense so much as relate to the subject under consideration. The patient was found with the right hip flexed at an angle of about forty-five degrees, but walking briskly, limping in consequence of the shortening, but denying all pain.

I should here remark that by the absence of pain I always mean *conscious* pain—the pain which the patient, on being questioned, will localize and admit. But I do not include those involuntary and unconscious evidences of general physical distress which almost always exist, and, taken together, furnish some of our best diagnostic signs.

In this case, though the child ran about, apparently as freely as any child, and denied all painfulness either in walking or on being moderately handled, yet the mother admitted that he would occasionally cry out in his sleep. She had called at my office one year before to put the case in my hands for treatment for the existing deformity, but finding that I was absent and not likely to return soon, she had waited till she had heard that I was at home again. During all of this time, according to her story, the symptoms had remained unchanged; there had been no complaint in running about, no limping from conscious soreness in the joint or anything which, to her observation, required prompt measures of interference.

She was very much surprised when I told her that the child was in a very dangerous situation, and I refused to have anything to do with the case except with the distinct understanding that, so far as suffering was concerned, the child would certainly be a great deal worse. Without treatment it was only a question of time, for death of the bone, with its attending dangers, would occur; and with treatment, increased physical suffering was inevitable.

Now, what were my reasons for such an opinion? Simply these:

There is not a very high sensibility in the tissues pertaining to the hip-joint, unless developed by an acute inflammation, or by the swelling of the coverings of the articulations beyond the capacity of the narrow space to contain them causing pressure, or by the rubbing together of diseased surfaces.

Now, we may have an inflammation of the articular surfaces developed gradually by successive slight injuries—and indeed this is the way that the greater number are developed; the inflammatory process may be extending first to the cartilaginous investment, and then to the bone itself, but not at so rapid a rate as to reach the stage of conscious pain; or the swelling may not be sufficient to fill the space, and cause painful pressure. In such a state of things as I have described, the source of pain would be motion—the friction of inflamed surfaces. But if motion is estopped by uniform muscular action, there will be no pain, while the conditions above mentioned are maintained. But if the swelling and inflammation increase *beyond a certain point* the pain will be developed. Or, if the muscular contraction is not sufficient to prevent friction, or, if having been sufficient, it diminishes in consequence of rest, and a receding of the inflammation in the joint, there will be conscious pain. In other words, it is possible to have pain as a direct consequence of a partial improvement in the patient.

Now it so happens that in cases characterized by a diminished amount or entire absence of pain, during a certain period, there is invariably a uniform degree of muscular contraction sufficient for entire arrest of motion during locomotion, and on examination also, except with very delicate manipulation, or with a hurtful amount of violence. But an amount of muscular action sufficient to arrest motion in the joint (with the present effect of preventing the painfulness) is a very serious factor in the case.

The first effect of such strong and long-continued pressure is generally to deaden the sensibility, if there is only a moderate amount of inflammation. But such long-continued pressure must prove destructive to the parts pressed upon. Congestion, and finally the death of the bone, take place, with extensive suppuration and all the usual phenomena attending such a catastrophe. Moreover, a uniform muscular contraction, sufficient in degree to permanently arrest motion, is very often mistaken for ankylosis, and also is frequently confounded with the muscular rigidity resulting from long-continued disuse. I shall refer to these last-named conditions before the completion of this essay. It is sufficient for my present purpose to say that that form of muscular rigidity which results from the atrophy of non-use does not occur in the first years of disease of the hip-joint, nor, in fact, do the muscles ever lose entirely their irritability, contractility, and elasticity during any period of inflammatory action.

Fibrous ankylosis, except in rare instances, occurs very late indeed—generally several years after the subsidence of all diseased action; and osseous ankylosis is of such rare occurrence that it is not easy to meet with a specimen in pathological museums.

But to return to our case. It was a correct inference that there could not have been continued pressure in the joint to the degree of arresting motion without damage. I could easily detect in his countenance and general appearance evidences of vital depression which a progressive disease imparts. I considered it a worse case than if there had been less muscular action and more painfulness during the preceding months.

I need not narrate the case further than to say, that on overcoming the muscular contraction through effectual counter-extension, painfulness on motion was developed which lasted for considerable time, but which finally subsided as time was given for the inflammation to subside, and the case was cured, leaving good motion at the joint.* I should say further that at one time we removed by aspiration a small amount of pus from close proximity to the joint. After diminishing the force of the muscular action, but before they were entirely overcome, and before the inflammation had time to subside, there was a period of spasmodic and variable muscular contractions, identical with what we see in other cases, which have not had periods of the uniform muscular action to which I am calling your attention. It is the unequal muscular contraction which is one of the greatest sources of painfulness, because we have variable pressure in the joint, accompanied with motion as the muscular action varies.

The kind of muscular action, whether uniform or spasmodic, varies immensely with difference of temperament, with the amount of, and also with the different stages of, the disease.

A difference must be observed between that which is purely of a reflex nature, as the direct consequence of local irritation, and that which is the result of an instinct—a physical instinct in contradistinction from volition, though the latter may also participate. Though all these different sources of muscular irritation often act together as factors in the production of a given result, they are nevertheless capable of practical analysis in any given case. As a matter of clinical experience, I find that where a case comes to me with a history of prolonged lameness, with intervals of apparent exemption from such lameness; the subject, as a general rule, having been treated for "rheumatism," or the mother told that it was a "habit" which the child would "outgrow" in time, but denying pain in walking; the child running about and, perhaps, going to school like other children, but with more or less uneasiness and occasionally crying out at night in sleep, we invariably find a case, on examination, of uniform tonic, muscular contraction, and an immovable joint. Very frequently, however, we do not see the child till after the prolonged muscular compression in the joint, assisted, perhaps, by some slight injury, has developed more active symptoms. Now, during all this period of occasional so-called "rheumatism" or "growing pains," but exemption from those more acute symptoms considered characteristic of disease of the hip—and which do characterize certain periods of that disease—we have had simply the operation of the muscular instinct to prevent motion, *because* there was disease in the joint. If this muscular effort to arrest motion was successful in the temperaments, and under the circumstances calling it forth, it does not follow that it will produce the same result in another temperament or under other circumstances. Hence, while in certain cases—notably those of slow accession of the disease—the first symptom which attracts attention is a slight shortening of the leg, and consequent limping; the flexion *not* preceded by eversion and abduction, and apparent lengthening, together with an absence of pain in locomotion, and rigid and uniform muscular contraction rendering the joint immovable, we have other cases which have been incorrectly taken for types and stages, with limping from pain, whom we find intolerant of, and fearing motion, and on examination we find less muscular action and more motion; those are the cases which evert the foot, with abduction of the leg. As a rule, I find the class of cases first above mentioned—those temporarily without pain, or with so-called "rheumatic" pains—to be the more serious of the two. But it should be remembered and accepted as a cardinal principle in the diagnosis of any disease of the hip-joint, that the muscular instinct is much more quick, and precedes by a relatively long period, the mental consciousness. A very slight injury to the joint, the merest trifle of inflammation resulting from such injury, will cause an immediate response of muscular action which can be appreciated by the examiner for the purposes of diagnosis, while the disease must have advanced to a considerable degree before the patient becomes mentally conscious of anything wrong. Of course, I reject etherization as being utterly valueless as a means to assist in diagnosis, and am simply amazed that it is ever used for that purpose. To relax the muscles is to destroy the most delicate evidence of suspected disease. A case or two in illustration of the foregoing views may help to fix them more firmly in the mind.

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* Since this paper was prepared I have learned, by a letter from the patient's mother, that at her first visit to New York, during my absence, and a year before the commencement of his treatment, he was taken to a surgeon here who examined him under ether, and said there was no disease of the joint.

D. W., aged seven years, in fair health and of healthy parentage, was brought to me on the 18th of June, 1874. A few hours before she had complained of an ill-defined pain in the right leg on rising in the morning, and limped observedly for the first time. Having an older child who had had disease of the hip-joint, the parents were alarmed and brought the child at once for examination, though the pain was so slight that no notice would ordinarily have been taken of it. On close questioning they remembered that a similar complaint—a mere passing allusion of an ache in the leg—had been made about two weeks before.

On examination, I found all the muscles involved in the movements of that thigh in a state of excessive tonic action. Unless the pelvis was firmly held it would move as the leg was moved, but with slow and carefully applied force, the pelvis being held, complete motion could be made at the hip-joint. But there was no consciousness of pain or shrinking from it on such motion, though there was evident muscular irritability. As the child's parents could not recall another instance of previous lameness, we deferred treatment, further than to order the recumbent position till the 20th, when, there being no change, we applied extension and carried it to the complete relaxation of the muscles. This required about six weeks to accomplish, when there was no apparent difference in the two joints as indicated by any difference in the condition or action of the muscles.

But we are not to assume that with the absence or subsidence of pain there is no disease. Neither are we to assume that with forcible relaxation of the muscles and the subsidence of all symptoms of active disease in the joint, the case is already cured. It requires time, and sometimes a good deal of time, to complete the reparative process.

It is evident that the protection of the joint must continue till the structures involved in the inflammation are fully restored to their former integrity. In this case the relief was too prompt and thorough, and the parents' anxiety was so entirely removed, that, after a few months, they ceased their regular visits, when, returning after a longer interval than usual, I found that stiffening of the muscles had returned. On searching for the cause, I found that, with the growth of the child, which was very rapid at that time, and the natural yielding of the instrument from wear, it had become too short, or rather, the leg had become too long, and instead of being supported by the instrument it was simply running through it with the heel resting on the bottom of the shoe. Thus the hip was receiving the weight of the body once more.

The instrument was lengthened, and in a few weeks all extra muscular tonicity had disappeared. The same thing has happened in many other cases under similar circumstances, and several times through carelessness in the same case. I relate this case, which is simple enough in itself, because the watchfulness of the parents in the first instance, and their too great confidence in the second place, gave me an opportunity of observing certain phenomena at an unusually early stage, which I am satisfied take place in a very large number of cases, though we do not always see them till after what was at first mere hypertonicity of the muscles is gradually converted into uniform muscular spasm with complete and constant arrest of motion, and this condition, either by the natural progress of the disease, accelerated by the constant, injurious effects of the increased pressure caused by the muscular action; or, it may be, aggravated by an injury—a misstep, a slip, or, perhaps, a fall—but often so slight that no symptoms would follow in a healthy joint, passes rapidly after a certain stage into that stage which is accompanied by the excruciating suffering so often witnessed.

It is my opinion that this is substantially the history of most cases of disease of the hip-joint; that there are very few cases where the disease is developed as the result of a single injury, though the injury immediately preceding the accession of the painful stage generally gets the credit of causing the disease. It follows as a logical inference, from the preceding,—and this conclusion is borne out by the facts which constantly come to notice,—that if there is danger in waiting for the development of the more distressing symptoms in case of suspected disease of the hip-joint, before admitting its presence, there is still more danger in abandoning any treatment which has been successful in relieving the pain, or in being satisfied with such treatment merely because it has been successful up to that point. Of course, any successful treatment must of necessity bring relief to the patient's sufferings. But such relief from pain may be more or less perfectly obtained by means which are quite incapable of effecting a radical cure of the disease. And here I think is the point where the inexperienced are liable to make the most frequent and disastrous mistakes both as regards modes of treatment, the length of time through which it should be carried, and the real condition of the patient. In many cases it seems to be assumed, that if a patient has been free from pain for a certain number of months, he is to be pronounced cured. There could be no greater mistake. The following cases are selected, with special reference to emphasizing the principles which I am insisting on.

R. G., between three and four years old, was sent from Texas, with what was then called psoas abscess. The surgeons into whose hands he came at first considered it a disease of the hip-joint—rather by inference, as one of them informed me, than as having been made out from symptoms which they considered positive—and he was treated for such disease, at first by counter-extension—various methods—the weight and pulley, and "Sayre's" and Taylor's splints, etc., and during several months of the time by the plaster-of-Paris bandage. Finally, after eighteen months or two years of treatment, as there was an entire absence of what they finally considered every indication of hip-joint disease, they came to the conclusion that the joint had not been diseased, but that there was a necrosis in its vicinity which involved and disturbed the muscular action, producing a certain amount of distortion similar to that which accompanies hip-joint disease. But this distortion could be readily overcome by the use of a little force, and the leg was easily brought down to its proper position without any pain or apparent inconvenience to the patient.

But on removing the opposing force, the thigh would assume its flexed and somewhat adducted position. At this juncture, viz., in January, 1872, Dr. Chrystie, in my absence, was called in consultation for the purpose of seeing if the existing deformity could not be removed by some mechanical means. On examining the child, he at once insisted that it was a case of hip-joint disease, then in active progress, and refused to treat it except for such active disease. A few months later, an abscess was discovered over the head of the femur, exploration revealed dead bone, and the joint was subsequently resected by Dr. Sayre, into whose hands the patient finally came. I have given this case, whose his ory is so exactly like many others, for the purpose of answering the questions which one of the surgeons attending him at the time Dr. Chrystie was called asked me not long ago. The first question was this. Said he: "We considered that there was an entire absence of any indication of disease of the joint. Now, what reason, in any symptom or condition of the patient, had Dr. Chrystie for coming to the opposite conclusion?"

My reply is, that Dr. Chrystie says he was satisfied that there was active disease going on in the joint the moment *he felt of the muscles*. It is the condition of the muscles which is the most constant and delicate diagnostic indication of hip-joint disease. "But," continued my interlocutor, "the muscles were in a condition of contracture, technically so called. Now, how are we to distinguish between this case, where it is admitted there was disease, and another case in precisely the same condition which is actually cured?" My reply goes directly to the bottom of the whole matter. I deny that there are, or can be, two cases with the same condition of the muscles, one of which never has had the disease, or has been completely cured, and another who has any degree of joint disease. The mistakes in diagnosis arise from confounding as identical two conditions which are entirely different and wholly separable. A condition of so-called contracture is a permanent shortening of the muscles. It is characterized by increased rigidity and diminished contractility. The *diminished contractility* and diminished irritability are important to be remembered.

This condition of the muscles may result from various causes. It is especially likely to be found after long disease accompanied with the absence of all direct or reflex nervous excitation to action; as after fibrous or bony ankylosis and disuse of the joint.

But this condition of the muscles must not be confounded with nor mistaken for the constant, excessive, unrelaxing, tonic contraction, in greater or less degree, varied or not with spasm, but always present when there is any disease whatever in the joint. The latter may exist so slightly as not to prevent the extremest flexion and extension, or it may exist to such a degree as to arrest all motion as completely as true ankylosis; but it can always be detected when we have a clear conception of its distinguishing characteristics. In the earliest stages of any injury to the joint, supposing such injury to be so slight as to produce the least possible inflammatory action, there may be a mere stiffening of the muscles, not enough perhaps to prevent motion, but always enough, when one is looking for it, for the educated touch to detect what I have named *a reluctance to relax*. It is quite independent of the patient's volition, though it often requires careful management to prevent the voluntary efforts from mingling with and obscuring this condition, which is independent of the will. It is the first feeble involuntary intimation of an effort to arrest motion, which, further along, and after the disease has increased, becomes palpable enough to the most ordinary observation. It is chiefly in the earlier and later stages when mistakes of diagnosis are most likely to be made. In the beginning this symptom, being less pronounced, may be overlooked; and later, when it has increased to its greatest degree, it may be mistaken for contracture or permanent shortening; and it is also often mistaken for ankylosis when it is sufficient to arrest motion. In the stage of its higher activity there are two conditions by which muscular contraction—the increased, constant, tonic contraction here meant—may be distinguished from so-called contracture, or the muscular shortening for which it is so often mistaken. There is increase of irritability (independent of muscular power), accompanied with what may be called a relaxability, while muscles in a state of contracture or permanent shortening are characterized by want of irritability and by inelasticity. The former *relaxes* on the application of force. The latter stretches by its physical elasticity, or by the rupturing of inelastic fibrous tissue.

The one is a *physiological act*, the other is a *physical effect*. It is perfectly easy to distinguish between these two conditions. One is a physiological and the other is purely a physical condition. Now this physiological condition does, and necessarily must, exist during the continuance of any exciting cause, and it therefore becomes symptomatic of the cause which excites it. Not only that, any degree of increased muscular tonicity is not only symptomatic of the cause which excites it and clearly demonstrates the existence of such exciting cause, but it is of itself an important element in perpetuating and increasing the very condition which produces it. Anything more than the normal amount of tonic muscular action is a constant menace to the integrity of the joint on which its force is exerted. We may save ourselves the trouble of going behind the condition of the muscles. When the question relates to the hip-joint it is not necessary to demonstrate nicely the actual relative condition of the joint, for the indication for treatment exists when we have decided that the muscles are acting in the least degree beyond what is a usual and necessary functional tonicity. If we may infer, in certain instances, that the exciting cause is not probably within the joint, such muscular action, if not overcome, is likely to affect the joint sooner or later. In most cases it is only a question of time. Our first duty is to protect the joint, and then we may perhaps afford to wait, like Micawber, to see "what will turn up."

I have already stated that it requires one (or more) favoring circumstances to develop painfulness; that this may happen at any stage of the disease when those conditions are present, and that the mere fact of a certain degree of painfulness, all other things being equal, is no true indication of the severity or extent of the disease. Very much depends on temperament and the uniting of conditions favoring the production of painfulness, irrespective of the stage or of the amount of disease. The next case illustrates this aspect of the subject very well.

W. B., of Tennessee, thirteen years old, tall, well-nourished, but inheriting a nervous temperament, applied April 4, 1874, on recommendation of Dr. Agnew and Dr. Cock. Fifteen months before, he fell from a pony and hurt himself severely, but did not mention it for fear he would have to part with his pony. Soon after he began to complain of indefinite pains in the leg below the knee, which were called "growing pains," and often without complaining of pain he was seen to walk stiffly, or with a slight limp. Lately this had increased, and when he came to us his lameness was increasing rapidly. About the time his treatment began, severe paroxysms of pain set in with very great muscular contraction, so much so that the two well-padded perineal straps, which we use with our splint, could not be endured with the extension we felt necessary to give, and the weight and pulley were added to relieve, in part, the excessive pressure against the pelvis. I do not intend in this paper to discuss the mechanical treatment of hip-joint disease; but I will say here that I follow one indication, viz., to overcome completely the muscular action. I use the counter-extending force—not till the pain, if any exists, is relieved, but *till the muscles relax.*

In this case he had not only all the extension by the instrument which his perinæum would bear without cutting, but besides the instrument the weight at the foot of his bed was increased till it reached fifty pounds. The equivalent of the instrument might have been a hundred pounds more. We had no means of estimating that. But it was carried till the muscles relaxed, and continued with this force—the instrument all he could bear and fifty pounds by weight and pulley additional—during six weeks, when the muscles were relaxed and he was let up, wearing the instrument only. He wore first the one and then the second instrument according to our method of procedure, and during the last two months he has been without anything. And now if any gentleman will examine him and can tell which was the affected leg, I should be very much obliged to him. Notwithstanding the violence of his symptoms, the disease must have been in its first stage or he could not have recovered so quickly and so completely. It should be borne in mind that I insist upon the fact of muscular action, rather than the degree of it.

Another case with a different history was a young lady, eighteen years old, of a healthy family, to whom I was called in Sept., 1872.

Some four or five years before—the time was a little indefinite in the remembrance of the family—she had slipped on the ice and had fallen in going to school. No immediate effects seemed to follow, but the family date a certain hitch or limp in her walk to about that time. There would be "rheumatic" pains from time to time, though not easily localized, but nothing to prevent her from attending to her ordinary duties, going to school, etc., till within a few months or perhaps a year before I saw her. Within that year she had several slips or slight accidents which aggravated her condition, and her attending physician, a few months before, had put her upon crutches, as a means of treatment, but not because she could not get about in tolerable comfort without such aid. Three weeks before I saw her, her crutches had slipped and she had fallen directly upon the affected hip. She was then put to bed, where she remained when I was sent for. She reported having considerable pain during the first week following the accident, but after that she had been entirely comfortable. I found her exhibiting relatively few signs of physical distress. With care, the leg could be moved without moving the pelvis, and she complained of no hurt during such movements of the joint as I thought it necessary to make. At the time I saw her there was a virtual absence of all those symptoms of painfulness, rigid muscles, pelvis moving as the leg is moved, or pain in the knee, or muscular spasm; and except for the proper inference derived from the history of her case, the only indication which I had to guide me in making a diagnosis was the *peculiar quality* of muscular action about the suspected joint. The educated touch could not be deceived, and I gave the unhesitating opinion that the joint was seriously affected.

I give a synopsis of the history of this case more especially in order to introduce what follows. Several months afterwards, though she had no pain in the meantime, and the muscular contraction had been overcome, there were several symptoms which attracted my attention, the principal of which was a kind of stinging sensation at or near the acetabulum, and I made up my mind that there was pus in or about the joint. I consequently determined to aspirate it. On March 27, 1873, after taking the bearings as carefully as I could, I introduced the aspirating needle, intending to strike the joint on the inferior margin of the acetabulum. Whether I hit the point aimed at or not I cannot tell, for you must remember the thickness of the thigh of a young lady of ordinary size and in good flesh; but this I know that, on second trial, I drew out about a drachm of very thick pus.

The subsequent history of this case is interesting, especially in two points of view besides the want of ordinary intensity of diagnostic symptoms: First, as showing how extensive disease of the thigh may depend on previous disease of the hip-joint; and secondly, how the former may go on while the latter is recovering.

One aspiration followed another whenever there was any suspicion of pus, and several attempts were made without finding any, and so soon as fluctuation could be detected free incisions were made and every means used to evacuate the pus whenever and wherever it could be detected. Notwithstanding all efforts, pus was found as far down as just above the knee. Evidently portions of the fluid originating in the joint had percolated along the femur, stripping it of its periosteum and establishing points of independent disease at different distances from the original affection. In the meantime the joint itself has done remarkably well, and is now, to all appearance, entirely free from disease. It required, after the first few months, but the smallest amount of extension, there has been no pain, and the motion is perfect. In fact, I consider the joint itself to be well. But it should be and will be protected till the last evidence of necrosis of the femur, now fast improving, has disappeared.*

I may say, in this connection, that, as a rule, disease of the hip-joint in adults is accompanied with less severe symptoms than in children. Especially do we find a markedly diminished muscular action as compared with the same disease earlier in life. This may be the reason that I have found so many cases of disease of this joint in adult life which made slow and nearly painless progress through successive years, and arrived at the stage of ankylosis almost without the patient being aware that anything serious was the matter with him. Diminished vascularity, as age advances, may be reason for diminished intensity of the inflammation in adults when compared with children.

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* Several times during the course of the treatment of this case, in order to test the fact of origin of the disease still further, I tried the experiment of letting up the extension. In every instance, after a few days there was observed a stiffening of the muscles, and once accompanied with soreness in the joint.

I hope I have been successful in satisfying those who have followed me so far, that it is never safe to dismiss a case as cured, no matter what may have been the method of treatment employed, merely because the pain has been relieved or that there is no hurt in locomotion.

I hope I have also made a sufficient impression to cause those who may place any reliance on my statements, to examine further and more carefully before concluding that want of mobility of the joint, without violent force, indicates ankylosis. A case on this point may be impressive.

In May, 1873, F. F. was brought to me for examination and opinion. She was then eight years old, bright and healthy, of excellent parentage, and had contracted hip-joint disease about five years before. The following items concerning the different stages of her case were taken from her father's statement: During the summer of 1868, fell on waxed floor in Paris; next January (1869) she was ill with scarlet fever, and complained of her knee and limped. Treatment begun January, 1870. Weight and pulley six months. Afterwards "Sayre's" splint was worn till October, 1870, when it was taken off and the patient pronounced cured. Summer of 1871 quite lame: electricity and *passive motion* (!) of leg twice a week. 1872, quite comfortable; limped a little. I saw her the first days of May, 1873. The leg was a good deal flexed, somewhat adducted, and the joint immovable from very strong, steady, uniform muscular action. I was told that the case had been pronounced cured by ankylosis. The occasional dull pains were said to be "rheumatic," for which White's rheumatic pills, Vichy water, and Russian baths, and various other things, were taken.

I gave my opinion in writing that the child had active inflammation in the joint, and that it was only a question of time before serious symptoms would be set up. The steady pressure of the head of the bone into the socket by the powerful, uniform, muscular action, was certainly increasing the mischief while they were dwelling in fancied security. My opinion was not acted on—it was probably scouted—the deformity must be overcome, and on the 6th of May, and again on the 15th, tenotomy was resorted to, accompanied with forcible extension, and the leg was brought down. Now, what was the condition left after tenotomy? Though temporarily diminishing the pressure in the joint, this procedure had made it impossible to prevent motion. A splint was worn for awhile, I believe, after getting up from the treatment connected with the operation, and finally removed. Now, if the thigh is extended on the pelvis, it only makes each step a harder blow in the unprotected joint than it would be if more flexed; and there is, in addition, the grinding motion with the compression of the still acting uncut muscles. The consequence in this case was, that the child began to grow worse immediately after beginning to walk about. I was again called ten months afterwards, viz., on March 18th, 1874, and found her lying with the leg flexed at right angles with the pelvis and abducted to the fullest extent possible (the adductors having been cut), and the little patient was in the most excruciating agony.

This stage had occurred much sooner than I had predicted, because the treatment had not been responsive to the indications then present. For I have never seen a case where the evidence of most powerful and uniform muscular action indicated more clearly active disease in this joint than in the case above described.

My object in relating this is because it embraces so many and so clear points bearing on diagnosis. I do not wish it to be inferred that because tenotomy, according to my interpretation of symptoms, was not responsive to indications in the case above related that I condemn such a procedure in other cases or when it may be indicated. To cut tendons of muscles in active contraction is what I object to. The utter failure of tenotomy in this case was due to not distinguishing active, uniform, muscular contraction from ankylosis and the muscular contracture.

If the latter condition had existed it would have implied a cessation of diseased action in the joint, and the operation would have been probably successful. The failure was explained to me by the attending surgeon on the theory that there was ankylosis. That there could have been no union in the joint is proved by the fact that she now has excellent motion.

I will now give another case of tenotomy. A. S., from Canada, a girl nine years old, double hip-joint disease with several discharging abscesses on each side. This was a dispensary case. The girl was first taken (1869) with the disease in the right hip, and during the most painful stage the attending surgeon divided the tendons of all the muscles, apparently, which he could reach. I never saw such extensive tenotomy practised. To judge by the appearance left, and the almost utter want of use of the legs, I should infer that they had been nearly cut off. Immediate and complete relief followed the operation. The child went to sleep and slept through the night for the first time in many weeks. Later on (1870) the left hip became diseased, when tenotomy was again practised in the same manner, with the same immediate relief from suffering. This freedom from pain lasted from that day to the time of examination.

But this heroic treatment, notwithstanding its first effects, did not prevent the disease from progressing, and both hips became subsequently involved in extensive ulcerations, and abounded in abscesses; besides which, she had not sufficient muscular power left to move her legs properly. Ankylosis of both joints would have left a better result. I think that such extensive division of the tendons, without at the same time protecting the joint in locomotion (for only the weight and pulley were used for a while), the effect of which was to promote motion in a joint unprotected by efficient mechanical means and exposed to the influence of concussion and external pressure, afforded less chance of recovery than if the joint had remained immovable though subjected to the increased pressure of muscular contraction. The result in this case—the disease going on to the death of bone a long time after the operation had relieved the painfulness—seems to point that way.

My opinion is frequently sought by medical men in cases which seem to perplex them on account of the variableness of the symptoms; not seeming to know that variableness is almost a diagnostic characteristic of this disease. The child gets lame, and, after a time, gets apparently entirely over it. Then he is observed to limp, but on being interrogated may deny it, or for a time may have actual pain, especially at night; then he seems to be as well as ever. So it goes on perhaps for one, two, or three years possibly without any treatment, or it may be with short seasons of little dabs of treatment, first of one kind, then of another; but in every case, whatever is done is abandoned so soon as there is no more painfulness or the lameness is improved. Of course, if I were writing on *the treat-*

ment of hip-joint disease, I should say that treatment should have reference to certain conditions to be changed, and is not to be influenced by temporary alterations of symptoms. But this intermitting and changeable character of the symptoms, which seems to be the stumbling-block to the careless and inexperienced, is really an important diagnostic consideration. It points directly to disease of the joint, and represents the early history of the majority of cases. It is true, however, that careful examination at any period in the intervals of lameness, as well as at other times, would almost always reveal a tension of the muscles and impaired motion at the joint, which would clearly establish the character of the trouble. Our records are filled with cases like the following:

J. K. was injured by a fall in 1867; had no pain, but was very lame. Treated by family physician by recumbent position for eleven months; extension by weight and pulley attached to *ankles*; "*cured*," but still limping. Then counter-irritants to joint were applied. This condition continued two years, during which time the family traveled in Europe, and many surgeons were consulted in regard to lameness,* very few of whom, the father reports, suggested disease of the hips. I saw her in 1870, and at once saw the symptoms of progressive disease of the joint, and warned the father of approaching disaster unless timely aid was given. But he would not believe it. She had been pronounced either cured or without disease too many times. During all this time both parents and patient insisted that there had been no pain or soreness, and they, with their medical adviser, had rejected the idea of disease.

But the leg was somewhat flexed, which caused a halting walk, and it was for this lameness that we were applied to. However, as time passed, painfulness at times began to be manifested, though still refusing treatment, till one night we were sent for in great haste, and Dr. Chrystie responding, found her in great agony with the interrupted muscular spasms, which are so distressing a feature in certain conditions during this disease. An abscess afterwards developed, and the case terminated in ankylosis.

The significance of sudden relief from a paroxysm of pain is very often misunderstood. When a patient applies to me saying, that he has been in great suffering, but at such or such a time became suddenly better—that is, was suddenly relieved of his pains, more or less completely, and has been gaining since—I am very apt to put a different interpretation upon the circumstance than the patient. I am very apt to make the parents understand that the supposed improvement is delusory; that the sudden relief, in the absence of other assignable cause, was occasioned by the escape of fluid from the joint, with freedom from the internal pressure of such fluid, and that an abscess within three, six, or nine months is to be expected, for such has been the rule in my experience. I have intimated that for purposes of diagnosis the chief reliance is to be placed on the touch—the educated touch. It is the quality of the motion, rather than the amount of it, which we need to determine. It is the character of the resistance which has diagnostic significance. The leg may be moved with comparative ease in all directions, and to the fullest extent; but if that is the only fact observed, it signifies nothing and determines nothing, in a large number of cases. Striking on the heel or knee, or pressure over the joint to see if it produces pain, is of still less value. Of course there are plenty of cases where such a procedure would cause pain; but such pain or soreness determines nothing, and there are many cases of active disease when any reasonable force would not cause sensible pain. It is also a manipulation which may do harm, and ought to be rejected as utterly worthless in a diagnostic point of view.

The following case will illustrate the importance of appreciating, by the touch, delicate qualities of motion.

Mrs. S., of Newark, N. J., was first seen March 26, 1874. In October, 1872, seventeen months before, she was very ill with typhoid fever which lasted for twenty-one days. Was very much prostrated for a long time and unable to move head or hands, and it was spring before she could be got into the upright position. Had a great deal of pain running from knee to hip, and had never been able to bear weight on the left leg. The muscles of both lower extremities were contracted and rigid, both thighs and legs flexed, but the left much more than the right. The left was also strongly adducted across the pelvis. The right hip we pronounced sound, but the left joint exhibited unmistakable evidence of disease. There were commencing adhesions in the joint; in fact, incipient ankylosis existed, and we gave the lady and her husband to understand that a stiff joint could not be avoided. We would undertake to put the thigh, which was badly flexed and adducted, in a better position if they would be satisfied with that; but that was all we could lead them to hope for in regard to the left leg. The contraction at the right knee and hip could no doubt be wholly overcome and that leg fully restored. With regard to the condition of the left hip-joint I have no doubt that the injury was due to muscular compression while she was in an impoverished state of health. Muscular spasm is not an unfrequent occurrence, and I have known dislocations and other injuries to the joint to arise from this cause during severe typhoid attacks. The motion at the left hip was restricted, but easy enough to make. Now, that being the case, what caused me to think that adhesions had commenced in that joint?

This knowledge was gained purely by the sensation imparted to the fingers while balancing the leg delicately in the hand. A ponderous oaken door, swinging on well-oiled hinges, imparts a sensation of smoothness to the hand that moves it, quite independent of and distinct from the resistance it offers; while a light pine weather door, closed by a spring, though yielding to a gentler touch, imparts a clear and true sensation of a bending substance. So in this case, with my hand at the knee I could feel the resistance at the joint, and could determine that it was not muscular, and that the resistance, though slight, was in the joint. The result has proved the correctness of my diagnosis. There is now ankylosis in the left hip-joint, as predicted.

You will find this case reported in the MEDICAL RECORD for May 1st, 1874, under the title of "a Case of Muscular Contraction and Deformity Similating Hip-Joint Disease." It was a clinical lecture by an eminent surgeon, delivered in Bellevue Hospital, some two weeks before this case applied to us.

But, though I believe the condition within the joint may be much more readily determined through direct sensation by delicate manipulations than by anything approaching violent handling, it is still true that the relative condition of the muscle affords the most sensitive guide to indications for practical treatment.

If I dwell on this subject at wearisome length, it is because I would give the inexperienced the key to successful diagnosis in this class of cases where failure in diagnosis is often so disastrous to the patient. Please bear with me while I introduce another case more in illustration of this branch of our subject.

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* I use the words "lame" or "lameness" in this essay to describe a *faulty* walking, and not to imply a painful walking.

S. G., of Mobile, Ala., eight years old, daughter of a physician, applied May 20, 1874. She was what might be called a "good case." Her father, then attending lectures in New York, had been written to that his little daughter had had various attacks of "rheumatism" from time to time during the several preceding months, and there was just a perceptible lameness.

The father divining the cause of the difficulty, had her brought to New York, and placed under our care. At that time she complained of nothing whatever, and it was difficult for the unpracticed eye to discern any defect in walking.

Examination revealed the stiffening of the muscles, which is so characteristic of inflammation in the hip-joint, though ordinary motion was painless and could be carried to very nearly the natural extent. Treatment was at once begun and pursued in the usual way, with decided benefit from the first. That is, the muscles relaxed and motion in the joint was less obstructed than before, but I was troubled to account for the fact that the muscular relaxation was not total, and motion in the joint was not so completely free as I had reason to expect in a case taken in so good season. Thus the case went on, for six months or more, without one untoward symptom except the barely detectable incompleteness of muscular relaxation before mentioned. Then an abscess was discovered directly above the trochanter major. The child was quite fleshy, and this abscess had been burrowing beneath the muscles, where it had exerted a certain amount of pressure within the joints. This internal pressure, extension of the leg of course could not remove. Hence a certain amount of stiffening or reluctance to relax remained in the muscles, notwithstanding efficient counter-extension. The abscess was promptly opened and complete relaxation followed quickly after the discharge of the pent-up fluid. The abscess soon healed. There is now complete relaxation of the muscles and perfect motion in the joint.

In differentiating between muscular contracture and persistent, uniform muscular contraction, no inference can be safely drawn from the length of time during which a condition has been maintained. We may accept it as the rule that while there is disease there will be active muscular contraction, and while there is active muscular contraction we may take that fact as a sure indication of disease. Furthermore, while there is motion in the joint, no matter how slight and restricted, there will never be complete loss of muscular irritability and contractility. But, on the other hand, so soon as motion in the joint is utterly prevented from any cause, and the disease has subsided, so that there is no direct or reflex irritation, the muscles pass rapidly into the passive mechanical condition called contracture, irrespective of the length of time it has required to arrive at this stage. Almost the whole diagnostic art, then, in these cases resolves itself into the ability to detect delicate shades of muscular conditions and otherwise imperceptible amounts and qualities of motion, which, when clearly made out, in kind, quality and degree, carry absolute conclusions regarding diagnosis, treatment, and prognosis.

It is surprising for how long a time a case may remain in the same relative condition, after a certain period has been reached.

A young lady, eighteen years old, from Williamsburgh, Miss P., had had double hip-joint disease, as she said, all her life. For at least ten years, according to the account, she had walked with the knees in forcible contact, thighs flexed to an angle of 75 degrees or more, body bent, hands resting on two sticks, and progression made entirely by movements at the knee; and yet the joint on one side was good, and after stretching the muscles and restoring their action, she now stands upright and can take steps of almost the natural length, moving at the hip. Of course, there may be necrosis in the vicinity of the hip-joint, which may involve the muscles of the thigh in their influence, and we may have contractions which distort the position similar to that produced by disease of the joint. Disease of the lower dorsal and of the lumbar vertebræ, by causing contraction of the psoas muscle, will flex the leg, sometimes with adduction, and even be accompanied with a sensitiveness to manipulation which might be mistaken for evidence of disease of the hip-joint. But there ought to be little difficulty in distinguishing between the action of the flexor muscles alone, as when the psoas and iliacus muscles are irritated, and contractions which involve all the muscles concerned in movements of the femur.

Besides, the aspects of the two cases are strikingly dissimilar. When there is disease of the hip-joint the forward curve in the lumbar spine is increased, while in incipient spinal disease there is likely to be a straightening of the lumbar curve. The flattening of the natis on the affected side, and the conversion of the fissure between the nates from a vertical to a diagonal line may happen in both cases, and such change being often wanting in true hip-joint disease, and for other reasons, I regard it as of no importance as a means of diagnosis. When it exists the case can be made out perfectly well without that appearance. Its unreliable character should lead us to reject it.

This essay would not be complete without a few words upon the subject of so-called "hysterical joint," and some of the principal means of differentiating between the latter and true hip-joint disease.

Any one having much familiarity with joint diseases must have remarked the frequent recurrence of cases with painful and sometimes distorted joints, simulating in some respects disease of the joints to the inexperienced. The term "hysterical" serves well enough for the purpose of distinction, and was undoubtedly so called in consequence of its frequency in hysterical women. But it would be a mistake to suppose the painful joint without disease, to be confined to women or to hysterical women, although most frequently to be met with in unmarried women of a certain age.

But I have frequently met with it in children of both sexes, and, though less frequently, in adult males. There is a little girl in Brooklyn who has been brought to me regularly several times a year to be treated for hip-joint disease, to be as regularly sent home with the assurance that there was no disease of the joint whatever. She was a bright, nervous, delicate child, about seven years old. One day she saw a child lame with paralysis, and she immediately began to draw up her leg and to limp, and so she has continued to do for five or six years past. At one time she was treated by weight and pulley and recumbent position, for hip-joint disease. The leg was brought down readily enough, and after three months' confinement with the leg in the natural position the case was pronounced cured.

The attending physician, who related the circumstances to me, said you may imagine my surprise, when, after gathering the family to see the wonderful cure, on letting her up to see her start off on her feet, walking exactly as she did before her confinement. We have a patient under treatment for another disease, a boy. ten years old, who has walked lame, with his leg drawn up similar to the position assumed in hip-joint disease, for several years past, whereas there is no disease of the joint or muscles. Any form of treatment by directing the attention towards the part treated, only aggravates such cases.

Both the above-mentioned cases are now nearly well, and both began to improve not long after they were left severely alone, so far as their joints were concerned. But this is not so easy when a young lady applies to you with a painful joint—perhaps has come a long distance with a letter of introduction from her family physician, expecting you to put her into a splint and make a brilliant cure of her case. To tell her and her friends that there is no joint disease, and that this symptom depends on a general systemic condition, even if you succeed in avoiding the use of the word "hysteria," is very apt to be unsatisfactory, if it is not positively offensive.

This subject is very attractive to me, but I can stop only to call attention to the more prominent points of difference between an hysterical hip-joint and a true hip-joint disease. Of course, this comparison can apply only to a diseased joint at an early stage where the positive indications are more or less obscure.

In the first place, in hysterical joint there is generally excessive sensibility to the first contact of touch, rather than to motion, after the leg is fairly grasped. There is variability instead of general uniformity of character and amount of lameness in the same day. There is indefiniteness in regard to location of pain or soreness on motion, and there is the appearance and general history of the patient.

But here again, the best evidence of the nature of the difficulty complained of, is to be obtained by the sensation imparted to the hand of the experienced examiner. By a little management and patience, and perhaps several examinations, the subject's attention may be diverted so that we can very readily perceive that a large part of the muscular action is under the control of the will. which, of course, is diagnostic of the hysterical condition.

But there is another class of cases where I confess it is not so easy to make out the exact condition, under all circumstances. It is when we have real inflammation of the joint in a highly nervous and hysterical subject. While one should be on his guard against accepting appearances for realities, we must not, on the other hand, run into the opposite extreme by the assumption that because the subject is evidently hysterical she cannot have hip-joint disease. As a clinical fact we find a due proportion of cases of disease of the hip-joint among this class of subjects. And it thus happens that an actual disease may act as the disturbing element in the display of a large amount of nervous phenomena. Such cases are constantly occurring, and they require the most careful management and the exercise of judicial patience. in order to justly discriminate between those symptoms which flow directly from the disease, and those generally more demonstrative manifestations depending primarily on a hysterical constitution, and only secondarily on the local disease as an exciting cause. It is never safe to "jump at conclusions," or to think we know our case whatever our first impressions may be, till after we have fairly made it out by patient investigation.

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School Hygiene is being made the subject of a formal inquiry in Davenport, Iowa.

SALICYLIC ACID AS A THERAPEUTIC AGENT.

By A. MEAD EDWARDS, M.D.,

NEWARK. N. J.

Ever since the attention of the medical fraternity has been called to the subject of salicylic acid, I have watched the journals for records of its use and success, since many years ago, as a chemical student, I experimented chemically with the substance, and always felt that some day a useful practical application of this hitherto neglected substance would before long be found. It has remained for our German brothers, as usual. to point us a way, and I trust it will naturally follow that we Americans will outstrip our teachers. As early as possible I have put salicylic acid on trial, with the following results: On the evening of the 25th March, I exhibited specimens of salicylic acid before the Newark Scientific Association, and suggested to the medical members present the desirability of trying it in diphtheria, not being at that time aware of the success attending its use in this disease abroad. Dr. G. A. Van Wagenen took some, and the succeeding Saturday morning I received the following note from him, dated the night before:—

"Dear Doctor—When I received specimen of salicylic acid I hardly thought an opportunity would present so early to test its virtues. Before I left home yesterday evening one of my patients came to the office for some of the mixture of iodine. carbolic acid and glycerine. saying that her sister had been suffering from sore throat all day; that her mother had painted her throat with tinct. iodine; and. as it was no better, wished to apply what I had used in two other cases in the family. She said she would let me know in the morning (that is this A.M.) if there was no improvement, and if so would like me to see it. The solution was used once last night and once this morning; and about 10.30 I was called, no improvement having taken place. On examination, glands at bifurcation of carotid enlarged and tender, tonsils and pharynx swollen and reddened, with a delicate white membrane distributed in patches over whole pharynx and soft palate, and coming forward over the edge of the hard palate into the mouth; tongue deeply coated; temp. 102.2° F., pulse 120; face flushed, headache, pain in bones, and great prostration, etc. I give the history in order that you may know whether I made a mistake when I called this a case of diphtheria (non-malignant), and that you may have an idea of the test to which the acid was put. The delay had given time for the case to get under way, as the mother acknowledged herself. I suspended 2 grs. salicylic acid in 1 dr. glycerine (it would not dissolve with the moderate heat I used), and at 11 A.M. carefully painted over the whole throat, using 15 minims of the glycerine (gr. ½ ac. salicylic). Also dissolved 5 grs. of the acid in a pint of water, to be used as a gargle every twenty minutes or half an hour. At 1.30 P.M. her mother examined the throat, and says she could see no membrane. As soon as I finished my calls I went back to see what effect had been produced, and at 5.30 the pharynx and palate were entirely cleaned. leaving a very bright red surface. Only a very small patch remained on the back part of the right tonsil, which I may not have thoroughly reached. I reapplied the acid and continued the gargle. Nothing else was used with, or in connection with, the acid. I had hardly hoped for so early and favorable a report. I will send you the case in time."

Subsequently he told me the lady recovered entirely in a day or two.

A few days after I was called to see a lady, who complained of a severe sore throat, with the following symptoms: Pulse 100, temperature 99.4° F., tongue very much coated, great prostration, with severe pains in the back and down the arms, and especially in the back of the hands, with great headache. The sense of stiffness of the neck spoken of by authors when treating of diphtheria was very apparent, and was shown in the erect position maintained by the patient as she sat in her chair, and she also characteristically expressed the fear that she had caught a cold in her neck. There was considerable difficulty in swallowing, and an examination showed the tonsils to be covered with large whitish patches of the characteristic diphtheritic type. The rest of the mucous membrane, far up into the hard palate, was of a deep red hue, and considerably swollen. As the patient gave me a history of malaria, eight grains of sulphate of quinine in powder, followed by about twenty-five grains of bromide of potassium, were at once administered, and a gargle of a saturated solution of salicylic acid in water given, to be used as often as convenient. She had not slept the night before, and the night after I saw her she was kept awake almost until morning, during which time the gargle was freely used. The next morning I saw her, and all the white patches but one were gone. A solution of salicylic acid in glycerine, diluted with water, was given in a hand atomizer, and directed to be used every hour during the day, and the quinine and bromide to be repeated at night. That evening when I saw her the throat was quite clear, and the angry and swollen appearance of the mucous membrane had very much subsided. The next day she was convalescent, and two days after expressed herself as feeling perfectly well.

Dr. Archibald Mercer, House Physician at St. Barnabas Hospital, to whom I had given a sample of the acid for experiment, reported as follows:

"My dear Doctor—Many thanks for your specimen of salicylic acid. I have used it in two cases with most unhoped-for success. 1st, a fracture of the tibia and fibula, comp. by the protrusion of the lower fragment of the tibia through the integuments. I endeavored to convert it into a simple fracture by the free use of collodion and only partially succeeded. At the end of the second week the opening began to suppurate and I was obliged to remove my collodion cover, leaving a mass of granulations nearly an inch square. In a few days an abscess formed under this mass, and just after I had opened it I used your acid. I sprinkled the dry powder over the mass of granulations, and the next day I had a hard crust about one-quarter of the size of the original mass. And since then I have given it no attention. One application cured.

"2d. Large granulating surface following sloughing of toes from frost-bite. In this case the acid is most rapidly diminishing the size of the surface, at the same time nearly completely preventing suppuration and relieving parts completely of all bad odor (there being a slight necrosis of one of the phalanges).

"I have used it with very marked success in several cases of uterine disease; all foul odor present in the discharges is removed at once, and so-called ulcerations upon the os have disappeared after the use of one pad of cotton containing a grain or two of the acid and steeped in glycerine. A case of vaginitis in a woman of 68 was markedly improved, and a case of eczema cupritis of great severity and long standing seems to have changed for the better under its use."

I trust that the importance of the subject will be sufficient excuse for the disconnected character of this communication, and that the profession at large will give this new drug a fair trial and let us know what it will do.

Dr. Clark, of Belleville, to whom I gave a sample of the acid, reports very favorably of its use in the form of a powder in a severe case of bed-sores.

ZEISSL'S METHOD OF INTRODUCING LIQUIDS INTO THE MALE BLADDER WITHOUT THE USE OF THE CATHETER.

By A. ROSE, M.D.,

NEW YORK.

As the use of the catheter in injecting liquids into the bladder does harm to the mucous membrane in hemorrhage, a new method has been invented by Dr. H. Zeissl, of Vienna (*Wiener med. Wochenschrift*, 1874, Nos. 51 & 52). He simply fits the point of an irrigator into the mouth of the urethra, while the patient is placed on his back, with raised nates, the penis being stretched along the abdominal walls.

I have employed this method on one of my patients under the following circumstances: M—— K——, 60 years old, having retired from active business and leading a life of ease, is the father of a healthy and numerous family, having always been healthy, with the exception of a gonorrhœa contracted 40 years ago, was seen by me, for the first time, on March 22d, 1875. The patient complains for two weeks of frequent and painful micturition. The urine is turbid, and contains a large quantity of muco-purulent sediment. He is feverish, has neither sleep nor appetite. I tried to enter the bladder with a double catheter, but did not succeed on account of strictures. I then tried dilatation, beginning with a No. 6 steel sound, and finally succeeded in introducing No. 12. The first dilatations were painful, and followed by chills. In spite of the administration of quinine, and the hypodermic use of morphine, the patient claimed to have these chills still. He refused to let me make an incision into the strictures. On April 8th I introduced a double catheter, No. 10, which I connected with a fountain syringe filled with tepid warer. Mucus and blood coagula filled one canula to such an extent that, while the water entered freely, it could return only through one channel. During and after the introduction of the catheter there was great pain and fever. I saw the patient again on April 12th. The urine was clearer, and but little sediment was found. For internal use I had ordered the bicarbonate of soda, and lime water with milk, and Vichy water, to be used alternately. Want of appetite and sleep still existed.

Having in the meantime read of Zeissl's method, I introduced a glass tube into the urethra, having first connected it with the India-rubber tube of a fountain syringe, which contained about eight ounces of a tepid solution of tannin, which I allowed to pass into the urethra from a height of four feet. The patient experiences, after half a minute, while the liquid entered the bladder, a feeling of comfort, just as described by Zeissl's patients. I removed the glass tube as soon as the liquid began flowing out of the urethra alongside of the tube. The patient, feeling a desire to pass the water, emptied a liquid containing mucus and tannin.

April 13th, there is a decided improvement in every respect; the urine is nearly clear, there being but a very small quantity of sediment. The patient has been able to sleep a few hours.

April 14th, renewed introduction of solution of tannin into the bladder.

April 15th, patient has slept better than ever since he took sick; has no fever; his appetite is returning; and he feels altogether encouraged. Steel sound No. 12 passed for the first time with ease and without leaving any pain.

Progress of Medical Science.

Bastian on the Germ Theory of Disease.—At the meeting of the Pathological Society of London, on April 6th, Dr. Bastian opened the discussion by an address on the germ theory of disease; viz., the causal relation between certain virulent inflammations or specific diseases, and the presence of low organisms in the affected tissues. He alluded to the two main theories in vogue; the one which ascribes the origin of such diseases to certain ferments, or substances allied to the ferments, which Pasteur had at one time believed and stated to be the cause of all fermentative and putrefactive processes; the other, the physico-chemical theory which Liebig had advanced more than twenty years ago, and which, as it may be stated at the present day, affirms that living organisms, though they may act as ferments, act in this capacity merely by virtue of the chemical changes which the carrying on of their growth necessitates; and that other chemical changes taking place during the decay of organic matter, may make fragments of it (in the dead state) almost equally capable of initiating fermentative changes in suitable media; while in either case bacteria or allied organisms are prone to be engendered as correlative products.

In regard to the special question, whether gonorrhœa, purulent ophthalmia, erysipelas, hospital gangrene, puerperal fever, pyæmia, septicæmia, and the like, are due to the presence of low organisms, he states the following facts in opposition to such a view: 1. The experiments of many investigators prove that the alleged causes of disease may be actually introduced into the blood-vessels of low animals by thousands without producing any deleterious effects in a large majority of the cases. 2. Bacteria, if not actually to be found within the blood-vessels of healthy persons, do nevertheless habitually exist in so many parts of the body in every human being, and in so many of the lower animals, as to make it almost inconceivable that these organisms can be causes of disease. In healthy persons they may be found in myriads in and about the epithelium of the whole alimentary tract from mouth to anus; they exist throughout the air-passages, and may be found in mucus coming from the nasal cavities, as well as in that from the minute bronchi; they are absorbed in immense numbers with the food; and lastly, in persons with open wounds, bacteria are constantly to be found in contact with such surfaces, especially if the wounds are not well cared for, though the injured person does not necessarily suffer at all in general health. 3. The argument that the bacteria of such diseases are different from those of health, has yet to be proved, while, on the other hand, it has been shown that the forms which these two organisms exhibit is probably due to the peculiar conditions in which they find themselves. 4. The virulence of certain contagious mixtures diminishes in direct proportion to the increase of the bacteria in them, and again, fresh and contagious menstrua lose hardly any of their virulence by being subjected for a few minutes to a temperature of 212° F., and after being boiled in alcohol, both of which experiments, the author states, are known to be destructive to all recognized forms of living matter.

The presence of bacteria in the fluids and tissues of diseased persons, Dr. Bastian explains by the fact that certain changes have previously taken place in the constitution and vitality of such fluids and tissues, and that bacteria and allied organisms have appeared therein as pathological products.

As to the question, whether the germ theory is applicable to artificial tuberculosis, syphilis, typhoid, typhus, relapsing fever, cholera, measles, scarlet fever, small-pox, and other contagious fevers, the following statements are made: 1. With two exceptions, no definite germs or organisms are to be met with in the blood of patients suffering from these diseases during any stage of their progress. 2. The virus or contagion of some of these diseases, whatever it may be, does not exhibit the properties of living matter. 3. The virus of most of these contagious diseases with which definite experiment has been made, is most potent in the fresh state, while its power diminishes in intensity as organisms reveal themselves more abundantly in it. Reference is made to the facts mentioned by Obermeier, that the blood of relapsing fever patients exhibited spirilla, and to the statements of Klein, who claims to have discovered certain peculiar bodies among the lesions of typhoid fever, especially in Peyer's patches, while there are two diseases, sheep-pox or ovine small-pox and splenic fever, a disease occasionally communicated to persons from cattle, where it is now said there are certain low organisms in the tissues that appear to have some causal relation with the diseases. Our present notion of zymotic or ferment disease must, however, according to Dr. B., be subjected to modification, if we regard such diseases as due to the operation of low organisms in the sense that Pasteur claimed fermentation was due to the multiplication of such agents. The real fact is, that Pasteur and his followers have modified these views so considerably, that it is now acknowledged that such organisms are not essential factors in fermentation, and, indeed, such processes may go on quite independently of them; fermentative changes are produced under the influence of altered chemical processes taking place in unhealthy vegetal tissue.

Some such chemical action, it is suggested, may be at work in these diseased processes, and some of the complex compounds may be thrown off, and act as contagious principles.—*The Lancet*, April 10, 1875.

Statistics of a Hundred Cases of Operations for Stone.—Sir Henry Thompson has given a brief record of his last hundred cases of operation on the *adult*, excluding all cases below 22 years of age, of which there happened to be one. There are in the list only four cases below 50, sixty-five cases being above 60, and the mean age of the entire list of cases being not less than 63½ years. The first operation of this series was done shortly before Christmas of 1872, and the record represents all his work in this direction for two years and a quarter, the case of the Emperor Napoleon being the third of the series. Ninety-six were adult males, and four were adult females. Of the ninety-six males eighty-seven were operated on by lithotrity, and nine by lateral lithotomy.

The mean age of the eighty-seven operated on by lithotrity was 63½ years, the oldest being 83, the youngest 22, but only four were below 50 years.

The mean age of the nine operated on by lithotomy was 63½ years also, their ages being also between 36 and 79. Among the eighty-seven operated on by lithotrity were four deaths; the ages were 65, 65, 66, and 81. Among the nine operated on by lithotomy were two deaths, viz., at 61 and 63. Thus it is observed that there was a total of six deaths in ninety-six patients, by the two operations, with a mean age of 63½. In this series allusion is made to what may be termed an extraordinary run of luck. It was a succession of fifty-one elderly cases without a single death, these cases having a mean age of 64 years. The author states that he hopes soon to publish his experiences in an unbroken series of 500 cases in the adult male, besides the cases of women and children. —*The Lancet*, April 3, 1875.

Addison's Disease.—Dr. Greenhow, in his Croonian lectures at the Royal College of Physicians of London, has given us the results of a careful revision of over 300 reported cases of this disease of the supra-renal capsules. He found that the clinical phenomena which Addison associated with the peculiar lesion of the capsules were of very frequent occurrence, as evidenced by post-mortems in 228 of the cases. He describes the constitutional symptoms as mainly those of progressive asthenia, great languor, and indisposition for exertion, cardiac weakness, loss of appetite and gastric irritability, pain in the loins, epigastrium, and one or both hypochondria, while there is no emaciation, but often, on the other hand, a considerable excess of fat; the temperature is usually below the normal, the skin being cool, if not cold. The skin has a dusky, smoky, or yellowish-brown hue, but sometimes it is of an olive or green-brown color, or approaches in parts to the tint of negro skin. The discoloration is never uniform, but commences earlier and becomes deeper in the more exposed parts, and also in those parts where there is usually an excess of pigment. Sometimes there appear to be remissions and then constitutional symptoms and the discoloration of the skin disappear. Such alternations may take place several times before the fatal paroxysm, but on each occasion the patient takes one downward step that he never regains.

In typical cases of the disease he generally found the capsules enlarged, hard, and nodulated, though in rare cases their size was normal, or even less than normal. On section they scarcely ever presented any trace of the distinction between cortex and medulla. In fresh specimens the cut surfaces had a marbled appearance, from the admixture of two materials of different consistence and color. One of these materials had a grayish, semi-transparent appearance on being freshly cut, but a pinkish hue at a later period. The other material had an opaque-yellow, or cream color, and existed generally in the form of irregular, roundish masses of a more or less friable consistence, and was imbedded in the translucent tissues, from which, in many cases, it could easily be enucleated. These opaque, cheesy nodules were sometimes replaced by cretaceous masses, and then the capsules were smallest. Sometimes this material became fluid, making it appear as if there were abscesses, and, in fact, some observers had described them as such. The relative quantity of these two materials differed in different cases, and depended solely on the duration and intensity of the disease. The translucent material consisted of a fibrillated stroma, containing numerous lymphoid corpuscles; the opaque, cheesy matter consisted of amorphous, granular matter, with an admixture of shrunken cells, nuclei, and oil. In his own cases the capsule was thickened and was united by adhesion to neighboring organs, such as the liver, pancreas, kidneys, stomach, while the nerves of the supra-renal and solar plexuses had a thick, fibrous investment. He had also observed changes in the lymphatic glands of the neighborhood, and changes in the glands of the intestines and stomach. He does not think that the enlargement of the spleen was of constant occurrence.

Of all these cases 101 were regarded as typical, because in them the train of constitutional symptoms and the peculiar change of color in the skin was observed, and the disease was found in each instance, by post mortem examination, to correspond with the particular lesion already described, and in no one of these cases was there any other organic disease of any consequence. The author believes that a large measure of the doubt that has prevailed in regard to the existence of this affection as a distinct disease has arisen in part from the fact that Addison himself included in his list of cases some that were not real examples of it, while cases of pityriasis versicolor, syphilis, etc., have sometimes been mistaken for it; and further, the results of post-mortem examinations have not been correctly interpreted.—*The Lancet*, March and April, 1875.

Slowness of Pulse.—At a recent meeting of the Clinical Society of London, Mr. Thornton narrated the history of a case in which the pulse was so infrequent as at one time not to average more than sixteen beats per minute, while for several weeks together there were never more than twenty-four beats in the same time. The patient was a young married woman, upon whom, in 1872, he had performed tracheotomy for syphilitic laryngitis. Her pulse at the time of the operation was forty, and it was not until six weeks after, when the tracheotomy tube was removed, that the extraordinary slowness of the pulse was noticed. This infrequency had been accompanied by transient attacks of an epileptiform character. It appeared that she was first seized with these fits in the summer of 1870, the attacks happening daily for about two months, and the pulse averaging about twenty-four pulsations per minute. At the time of the narration her pulse was constantly at forty-eight, and the woman was in good health, except that at periodic intervals she was obliged to take iodide of potassium to abort an attack of laryngitis. Mr. T. offered no explanation of this curious phenomenon other than that the pneumogastric might have been affected by the specific poison. Mr. Callender stated that he had recently observed a pulse of thirty-two in a very robust man under his care. A case was alluded to which had been reported in an early number of the *Medico-Chirurgical Transactions*, where a pulse was observed to have ranged between twenty-five and seven. At the post-mortem examination it was found that the foramen magnum was so small that it would barely admit the tip of the little finger, and there was hypertrophy of the superior cervical ganglion of the sympathetic nerve.—*The Doctor*, April 1, 1875.

Mercury in Syphilis.—Dr. Drysdale, one of the most active opponents of mercury in syphilis, has recently had the courage to state that he has altered his views, and now believes that in many cases of primary and secondary lesions mercury may be used with benefit. His own prolonged treatment of secondaries with the iodide of potassium has taught him that the appearance of tertiaries is not mainly attributable to the abuse of mercury, but rather that it is apt to be induced by dissolute habits, constitutional vice, old age, and the like. He agrees with Fournier that judicious courses of mercury are very potent in warding off the tertiary stage. In the treatment of these later forms he believes that great reliance may be placed upon the iodide of potassium, or the iodide of iron, which he finds all-powerful agents, though at the same time he infers that in rupia and pustulo-crustaceous forms mercury is of signal service.—*The Doctor*, April 1, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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MEDICAL LEGISLATION IN NEW JERSEY.

The course of legislation in New Jersey in reference to matters of medical and sanitary interest has been such the past winter as to require some attention on the part of medical men. It was the intention of the Sanitary Commission to offer a bill to both Houses for the establishment of a State Board of Health. When the bill had passed the Senate and came to the Judiciary Committee of the House, the homœopaths appeared in full force to oppose the bill, unless at least three of their school could be named upon it. In that case they were ready to offer their own names on the bill, and objected either to leaving it to the Governor or Supreme Court to appoint. It is well known that these men embrace every opportunity to legislate themselves into position.

The bill did not specify that any of the Board should be physicians, and the Commission very properly claimed that it was not a bill for legislating any class of men into position. Although physicians or druggists, or persons who had served on Health Boards, might thereby be better fitted for service on such a Board, yet there was no reason why the State should recognize different sects of medicine in a bill for the public health, or specify the occupations of the Board. It was evident, from the construction of the Committee and the predilections of the majority toward irregular medicine, that if they reported the bill they would force some such amendment. So the Commission preferred to let the State wait for proper sanitary legislation rather than to recognize a Board on such a basis. It is not claimed that a homœopathic or botanic physician is by his vocation debarred from such a board, if the Governor found in such a one a proper sanitary officer, but it is claimed that no sect shall thus be allowed to legislate itself into place, and that a bargain, in which four of the old practice and three specialists nominate themselves for place, is a kind of coalition not productive of health interests. Hudson, too, a year or two since, made some such arrangement, which does not bring forth good fruit. Their highest ambition seems to be to tax every corpse twenty-five cents for passing through the County, and to compile vital statistics, which they well know, without a system in the State, is of no practical value. Yet they have succeeded in spending several thousand dollars of the public funds, and are not endorsed by the best physicians of the County.

A general registry bill which was introduced also had a strange history. After passing to a second reading, it could not be found, until one day it made its appearance on the floor behind the speaker's desk, where it had been innocently mislaid, and was thus discovered too late for passage.

In the meantime the *Eclectic* school of medicine, consisting of men and women, had a bill introduced authorizing them to license and practise. With this the regulars interfered but little. They took the ground that as the old practice had several years since relinquished all special chartered rights, they had but little interest in the method. On the other hand, the homœopaths, who had procured a charter some few years since, seemed jealous of this sect of eclectics, which is quite as respectable as the former, and secured the defeat of their bill. The homœopaths claimed that they are very particular to have no one practise without a diploma. How little this means we all are aware, because we know how much a diploma from some colleges is worth.

In the meantime another bill coming from Hudson County was introduced to appoint for the State a Board of Examiners with sole power to license, consisting of homœopaths and regulars, to constitute a board, each examining its own sect. Under the guide of the pliant Chairman of the Judiciary Committee of the House it was passed there, but was quickly defeated in the Senate. The whole course of legislature on medical matters in New Jersey has been quite instructive. The old profession of that State has eminent respectable men; is made up of many of the best graduates from New York and Philadelphia, and is ever alive to the progress of the art of medicine. It is in vain that the "mongrels" talk of it as old-fashioned, and represent themselves as new and progressive. The attempt to designate the regulars also as allopaths is a failure. They claim to be antipaths, and adopt this as their true title, because opposed to suffering, and doing all they can to overcome it. They are not practitioners of any system which asserts that contraries are cured by contraries. While homœopaths and eclectics, of course, secure some practice, and now and then one of them rides into style and wealth, yet there is a want felt of general respectability and recognition. This they propose to supply by legislation, instead of showing by their contributions to science their ability to entitle themselves to be classed as a scientific profession. Hence not even a sanitary matter can be brought forward unless in some way they seek through it professional recognition. We believe that the joint interests of the public and of the profession indicate that but little should at present be attempted in the line of medical legislation. Our legislatures are not sufficiently informed as to the merits of any particular system, nor are the people prepared to accept any special State endorsement of any school. The people must be left to find out in this as in other departments where and how they can be best served, and must make their own choice as to who shall attend them in sickness.

But all this should not in anywise interfere with sanitary legislation. The prevention of disease is far more eminently and practically the care of the government than is its treatment. There is no possible reason why, when a bill relating to public health is introduced, which does not even specify physicians, a host of sects should stand and ask for special legislation and recognition on their behalf. The readiness to bargain shows place-seeking, and the readiness to seek defeat unless bargain can be made, shows how little real interest such men have in sanitary matters. Thus sanitary legislation is delayed, and the people suffer. The only selfish consolation is that we doctors have more to do. If the people can stand it, we can. As citizens and as philanthropists we are sorry. As physicians we are consoled, because it makes business brisker, and we have better opportunities for the study of pathology.

Reports of Societies.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, April 16, 1875.

DISCUSSION OF DR. C. FAYETTE TAYLOR'S PAPER.

Dr. Garrish asked Dr. Taylor if he recommended the operation of exsection of the hip-joint?

Dr. Taylor replied that he had been looking for a case which would justify the operation, but had not yet found one.

Dr. Garrish asked if he understood the doctor to say that he did not approve of tenotomy?

Dr. Taylor replied that he does not object to tenotomy, but that it is not necessary when the muscles will relax; but in cases where either cutting or tearing must be resorted to in order to overcome muscular action, he preferred to tear rather than cut the muscles and tendons.

With regard to exsection he further remarked that he could do no better in answering Dr. Garrish's question than to present some statistics made up from the dispensary.

Cases of hip-joint disease under treatment, 225. Deaths of persons under treatment for hip-disease, 27. Causes of death in these cases:

Phthisis	1	Septicæmia	3
Diphtheria	3	Abscess and debility	1
Erysipelas	1	Pneumonia	1
Acute Hydrocephalus	4	Small-Pox	1
Cholera Infantum	1	Uræmia	1
Meningitis	2	Fatty Degeneration of Kidneys	1
Typhoid pneumonia	1	Causes not stated	6

There were possibly four of these cases which died from hip-joint disease; but whether they would have been saved by exsection he did not know. If any would have been saved by the operation, perhaps so far he had neglected his duty; but hip-joint disease is a very curable disease.

Dr. Peaslee asked Dr. Taylor whether, if he was aware that the head of the femur is necrosed, he would remove it or not?

Dr. Taylor replied that he did not object to its removal, but that they had had such favorable results in the treatment of such cases when it had not been removed, and had found that such patients do not die but get well, that the operation had not been resorted to. Either it so happened that they do not have bad cases, certainly do not see cases which would be improved by the operation, or else the operation was many times performed when it was unnecessary. That exsection was carried too far he had no doubt, but that there are cases in which the operation would be justifiable he does not deny; yet he had not seen such cases. He had, however, seen cases of hip-joint disease in which there was free discharge of pus from the joint, together with pieces of bone, and yet the patients have recovered with a good joint.

Dr. Peaslee. Then you have such cases?

Dr. Taylor. Oh, yes, we are having such cases constantly.

Dr. Garrish remarked that all the cases of hip-joint disease he had seen had been the result of injury, and he was of the opinion that we never have the disease occurring spontaneously.

Dr. Taylor remarked that he regarded it as of very infrequent occurrence except as the result of injury, but that it is possible for the disease to occur independent of an injury, he is convinced, and believes it is going too far to say that it never occurs from any other cause.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 14, 1875.

Dr. F. Delafield, President, in the Chair.

FATTY HEART, WITH FEW SYMPTOMS DURING LIFE.

Dr. Satterthwaite presented a specimen of fatty degeneration of the heart, which was rather interesting, in connection with a few prominent symptoms that the patient had during life. The history was obtained from the attending physician, and Dr. Satterthwaite was present at the autopsy. The patient was a gentleman seventy-one years of age, who had led a very active life, and had been in a very healthy condition. The only trouble that he had, so far as was known by his family physician, was an attack of acute rheumatism, which, however, passed away rapidly, without leaving any ill effects.

About one year ago he was travelling in California, and in walking up and down the hills during his short excursions, he noticed that he was short-winded. This inconvenience, as it was only temporary, did not give him any anxiety. About seven weeks ago he took a twenty-five mile sleigh-ride, and on returning he felt very weak. A little stimulus soon revived him, and he felt better. About five weeks ago, while riding up home in a horse-car, he partially lost consciousness, but by the help of some one he found his way home. His wife, finding him in a weak and confused condition, administered some stimulants with a good result.

The family physician was then sent for and pronounced the patient in a very weak and anæmic condition. On examination the heart was found to act very feebly, the beat being scarcely appreciable at the apex. His pulse could not be felt at all. His urine was examined, but neither casts nor albumen were found; it was from 1002° to 1018° in specific gravity. His pulse could not be felt at all. Tonics and stimulants were administered, with, however, no effect, and he gradually failed and died.

At the post-mortem examination the first noticeable thing was the skin of the patient, which was of an unnatural whiteness. The patient was well provided with fat. On opening the thoracic cavity the lungs were found to be marked by œdemations. The pleural cavities were filled with bloody serum, as was also the case to a limited extent with the pericardium. The heart itself was not specially enlarged, but was very pale and flabby. There was no trouble about the valves. The aorta was somewhat atheromatous.

It was very evident, in looking at the left ventricle, that it was very fatty. In the right ventricle this condition was not so much marked. A microscopical examination confirmed the conclusion in regard to the pathological condition alluded to. On the inner side of the left ventricle the markings of the muscular tissue were entirely gone, but on the periphery of the heart the muscular tissue was less fatty.

The liver was small, but not fatty, and the cells were large and granular. The kidneys were remarkably pale, fatty, and friable, particularly the right, the upper portion of which was particularly soft. This latter condition was due to a parenchymatous degeneration of the tubes. It was hard to recognize any cells whatever in the tubes of the lower portion of the right kidney.

The interest of the case seemed to be connected with the existence of fatty degeneration of the heart of a well-marked character, and yet without any prominent symptoms during life.

Dr. Delafield thought that it was ofttimes very perplexing to determine how much degeneration of the heart fibre was sufficient in a given case to cause death. In some cases a very moderate amount of degeneration was the only recognizable lesion, while in others the heart was extremely fatty.

Dr. Loomis remarked that the size of the heart cavities had a great deal to do with the cause of death. When there was a great deal of dilatation, a very small amount of attendant fatty degeneration might be a sufficient cause for death, and *vice versâ*. Wherever there was a feeble action of the heart, and indistinct first sound, indistinct apex beat, with increased area of dulness, the prognosis was apt to be unfavorable, but where there were no evidences of dilatation, the chances for living were good.

Dr. Delafield remarked that dilatation always attended fatty degeneration, and one condition was usually a mark of the other.

MISCELLANEOUS SPECIMENS.

Dr. Messenger presented specimens of interstitial nephritis removed from a patient aged sixty-four, with very obstinate rheumatic pains and persistent ascites.

Dr. Burral, by invitation, presented a specimen of congenital laryngismus, after which the Society went into executive session.

* * *

La Pharmacie de Lyon is the title of a new pharmaceutical journal which is being published at Lyons, France, since the 1st of March.

Correspondence.

CASES OF HIGH TEMPERATURE.

To the Editor of The Medical Record.

Sir:—In a previous issue is an excerpt from the *Lancet*, of March 6, on "Extraordinary High Temperature."

Thinking a brief statement of two cases of Pneumonia, which I have still under treatment (though now convalescent) might interest your readers, as regards temperature, I submit them. The first case, a girl aged 16 years, strong and full-blooded, had pneumonia of the left lung. Temperature began rising up to fifth day, when it stood, as carefully noted by a self-registering thermometer, 107·5. The sixth day it fell to 104° by evening. The condition of the patient otherwise showed no cause for alarm as far as consultation could decide. She is now about, and free from cough, and gaining her strength fast.

The second case was her brother Frank, aged 20 years. He was seen twelve hours after he began to complain. Pulse 165, wiry. Slightly, delirious. Examination reveals pneumonia of right lung. Temperature, *very carefully* taken thirty-four hours after I called, was 110°. I could not believe my eyes until I had repeated the experiment several times with the same result. The expectoration was nearly pure blood for forty-eight or fifty hours; cough harassing. Now here is a strange feature (to me) in this case: the temperature was 110° at 5 P.M., and next morning at 9.30 A.M. it had fallen to 99, or rather 98.08. Treatment: potas. iodid. and tr. aconite during the night. An intense diaphoresis occurred which continued for twenty hours.

Yours respectfully,
J. G. Bacon, M.D.

Saratoga Springs.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 25th to May 1st, 1875.

Sloan, Wm. J., Surgeon.—When relieved by Surgeon Head, to report in person to the Commanding General Department of Dakota for duty as Medical Director. S. O. 73, A. G. O., April 23, 1875.

Head, J. F., Surgeon.—To report in person to the Commanding General Department of the South, for duty as Medical Director. S. O. 73, c. s., A. G. O.

Byrne, C. C., Surgeon.—Transferred from Willet's Point, N. Y. H., to Department of Dakota. S. O. 73, c. s., A. G. O.

Bache, D., Surgeon.—Relieved from temporary duty in Baltimore, and to resume his duties at Fort McHenry, Md. S. O. 76, A. G. O., April 28, 1875.

Frantz, J. H., Surgeon.—Transferred from Department of the South to Military Division of the Atlantic. S. O. 73, c. s., A. G. O.

Weeds, Jas. F., Surgeon.—Transferred from Department of Dakota to Department of the South. S. O. 75, A. G. O., April 27, 1875.

Wolverton, W. D., Assistant Surgeon.—Transferred from Department of the South to Department of Dakota. S. O. 75, c. s., A. G. O.

Gibson, J. R., Assistant Surgeon.—Transferred from Department of the South to Department of the Platte. S. O. 73, c. s., A. G. O.

O'Reilly, R. M., Assistant Surgeon.—Relieved from duty in Department of the Platte, to report in person to the President of the Army Medical Board, New York City, for examination for promotion, and, upon its completion, by letter to the Surgeon-General. S. O. 73, c. s., A. G. O.

Matthews, W., Assistant Surgeon.—Transferred from Military Division of the Atlantic to Department of California, and prior to his departure, to report to the President of the Army Medical Board, New York City, for examination for promotion. S. O. 73, c. s., A. G. O.

Munn, C. E., Assistant Surgeon.—Transferred from Military Division of the Atlantic to Department of the Platte. S. O. 73, c. s., A. G. O.

Cowdrey, S. G., Assistant Surgeon.—Relieved from duty in Department of the Missouri, to report to the President of the Army Medical Board, New York City, for examination for promotion, and, upon its completion, by letter to the Surgeon General. S. O. 73, c. s., A. G. O.

Finley, J. A., Assistant Surgeon.—Transferred from Military Division of the Atlantic to Department of the Missouri. S. O. 73, c. s., A. G. O.

Bedal, S. S., Assistant Surgeon.—Transferred from Military Division of the Atlantic to Department of Texas. S. O. 73, c. s., A. G. O.

Hamilton, J. B., Assistant Surgeon.—Transferred from St. Louis Barracks, Mo., to Department of the Columbia. S. O. 73, c. s., A. G. O.

Medical Items and News.

Dr. E. G. Janeway has been appointed Health Commissioner in place of Dr. S. Smith, whose term of service expired. The appointment is an exceedingly good one, and cannot fail to be satisfactory to the profession of the City.

The Association of American Medical Editors held its annual meeting at the Galt House, Louisville, May 3d. The President, Dr. Edgar, editor of *The St. Louis Medical and Surgical Journal*, delivered his annual address on the subject of medical education. This gave rise to an interesting discussion, participated in by Drs. Davis of Chicago, Parvin of Indianapolis, Bell of New York, Cuthbertson of Cincinnati, and D. W. Yandell, of Louisville.

The following officers were elected for the ensuing year: President, Dr. Bell, editor of *The Sanitarian*, of New York; Vice-President, Dr. H. C. Wood, Jr., editor *Philadelphia Medical Times*; Secretary, Dr. F. C. Davis, editor *Chicago Medical Examiner*.

Dr. D. W. Cheever has been appointed Professor of Clinical Surgery in the Faculty of Medicine at Harvard University.

Visiting Physicians to the Presbyterian Hospital.—Drs. Samuel T. Hubbard, G. M. Smith, F. A. Burrall, and V. S. Wooley have been appointed visiting physicians to the Presbyterian Hospital.

New York Hospital.—Mr. John C. Green, President New York Hospital, and Mr. Wm. Dennistoun, Treasurer, both died of pneumonia within twenty-four hours of each other. They were interred on the 3d instant.

The New York Academy of Medicine will occupy its new building, No. 12 West 31st street, on Thursday, 20th inst.

Transfusion.—According to the daily papers, Gen. Frank P. Blair, of St. Louis, Mo., is paralytic and has been the subject of transfusion. Six ounces of blood are reported to have been thrown into his veins with favorable results.

The Jewish Hospital of Philadelphia is pronounced by the Agent of the Pennsylvania State Board of Charities to compare favorably with the best hospital in the land, and recommends its adoption as a model for hospitals of similar size and purpose.

Diphtheritic Membrane.—The physicians appointed by the Health Board of this city to make studies in the pathology of diphtheria, have requested us to say that they will esteem it a great favor if they can be furnished with fresh specimens of diphtheritic membrane, or granted opportunities to attend post-mortems in diphtheria cases. Scraps of membrane can be wrapped in a bit of moist wax, and this in gutta-percha tissue or oiled silk, and forwarded by mail to Dr. T. E. Satterthwaite, care of Allan Cummings, Esq., 442 Fourth Avenue, to which address also any communication may be sent.

German Diplomas in New Jersey.—A question is now in abeyance before the County Board of Health of Jersey City with regard to the physicians practising in the county. It appears that a great many have diplomas from foreign countries, in Germany chiefly, and the Board have written to the various universities at which the physicians have been graduated, to inquire as to their right to practise. Seventeen letters have been written, but only twelve answers received, and these not at all satisfactory, as they assert that the names of those that have been submitted have not passed the State examination which enables them to practise in their own country.

Pneumo-thorax, by Austin Flint, Sr., M.D. The third of this series of American Clinical Lectures, published by G. P. Putnam's Sons, is at hand, and embraces some eighty-one pages. The substance of the lecture was given in clinics at Bellevue Hospital, during the Session of 1874 and 1875, and the subject is arranged under the following heads: I. Pneumo-thorax in Cases of Empyema. II. Pneumo-thorax in Cases of Interstitial Emphysema. III. Pneumo-thorax in Cases of Circumscribed Gangrene of Lung. IV. Pneumo-thorax in Cases of Phthisis.

A Philadelphia School for Nurses.—W. H. Hutt, M.D., has established a school for nurses at 1017 Morris street, Philadelphia, which is designed to give instruction to women in nursing, and also to prepare and furnish food suitable for such sick persons as are unable to procure necessary diet.

The Medical Department of Harvard University has established an examination for admission.

On and after September, 1877, all students seeking admission to the Medical School must present a degree in letters or science from a recognized college or scientific school, or pass an examination in the following subjects:

1. Latin. The translation of easy Latin prose. French or German will be accepted, however, as a substitute for Latin.

2. Physics. Candidates will be required to show such a knowledge of this subject as may be obtained from Balfour Stewart's elementary works on Physics.

The examinations will be conducted in writing, and in judging the work of the candidates the spelling, grammar, and construction will be considered.

Graduates in medicine will not be required to pass this examination on joining the school.

Original Lectures.

THE GENERAL PHYSIOLOGY OF THE MOVEMENTS IN THE BODY.

By J. W. S. ARNOLD, M.D.,

PROF. OF PHYSIOLOGY, UNIVERSITY MEDICAL COLLEGE, N. Y.

Phonographically reported for THE MEDICAL RECORD.

LECTURE II.

GENTLEMEN :—To-day we will continue the study of muscular phenomena. If to a healthy muscle a piece of *red* litmus paper be applied, it becomes slightly blue; that is to say, a muscle when, as far as possible, in the normal condition gives an *alkaline* reaction. This occurs when the muscle is at rest [experiment]. But if the nerve be irritated so as to produce a continued contraction or tetanic condition, then the *blue* test paper turns red as you see [experiment], showing that while the muscle was contracting the reaction has been changed from alkaline to acid. I place the muscle in warm water, so as to kill it, and then touch it with the test papers. After rigor mortis has been fully developed, the reaction is acid again [experiment]. From these experiments we conclude.

A muscle at *rest* and in a *normal condition* is *alkaline*. The same muscle during *contraction* is *acid*, and is also acid during *rigor mortis.*

A piece of perfectly fresh living muscle, viewed under the microscope, is quite transparent. Kill the same muscle and then examine it, and it is opaque. How is the change produced?

It is due to a coagulation that occurs in the muscle of certain albuminoid substances. This is the manner in which rigor mortis is produced. The normal structure of a muscle consists of the sarcolemma and its contents, namely, the muscular tissue proper, permeated by the muscular fluid. When the muscle dies, a coagulation of this fluid takes place. It is on account of the coagulation of this fluid that the muscle becomes stiffened and hardened soon after death occurs. After a time, however, this coagulation liquefies and the muscle again becomes soft. This is the ordinary flexibility observed at about the time the body shows the first signs of decomposition.

There is a peculiar *sensibility* connected with muscle which is characteristic. While a muscle is in a state of spasm we perceive a peculiar sensation. When we lift a weight, or tread upon certain substances, or when we are pulling against a resisting force, the peculiar sensation produced belongs to the muscles and is called muscular *sensibility.* There is but little actual pain connected with destroying a muscle, but there is a sensation peculiar to muscle and distinct. A good illustration is that peculiar sensation of fatigue felt in the muscles, which we all have appreciated after carrying a weight for a long time. I have already told you that muscle possesses a property known as *irritability*, by means of which it contracts when under the influence of a stimulus. In order that this property may manifest itself certain conditions must be fulfilled, namely, the muscle must be anatomically and chemically intact. That is to say, as soon as an alteration takes place in the normal chemistry of the muscle, this irritability ceases, and the same is observed when its anatomical elements are destroyed. For example, if we plunge a muscle into hot water and coagulate certain substances, which in a normal condition are fluid, the muscle becomes changed chemically; and on the other hand, if we cut, or tear, or stretch a muscle beyond a certain point, we have injured it anatomically. In either instance the muscle ceases to respond to irritation.

A curious experiment has been performed by Brown-Séquard upon muscle after rigor mortis has commenced. [We know that during the time of rigor mortis it is impossible to obtain muscular contraction in response to the action of a stimulus.] Brown-Séquard injected into the arteries of a limb in this condition a certain quantity of fresh defibrinated blood. Of course this blood returned by the veins, and in this manner a new quantity of nutritive material was sent to the parts; and when this had been continued for a certain length of time, he found that contractions followed the application of an irritant. In other words, he found that after rigor mortis had been established, the simple injection of defibrinated blood caused *irritability* to return. It has been shown, furthermore, that when the abdominal aorta of the dog is ligated, in the course of a minute or two all voluntary movements cease, and the muscles refuse to respond to stimuli. But when the ligature is removed and the circulation allowed to become re-established, the muscles will be restored to their normal condition. The foregoing proves that the muscle must be supplied with a sufficient amount of nutriment in order to retain its irritability for any length of time.

I wish now to show you a series of very curious phenomena, namely, the *electrical currents* in muscles. These currents were discovered a number of years ago, and have been the subject of a large amount of experimentation. I will first explain the theory and then show you, as well as possible, the actual experiments. The adjustments for these experiments are exceedingly delicate and are really more fitted for the laboratory than the class-room.

Imagine a piece of muscle, with a longitudinal surface either natural or artificial, and a transverse surface, either natural or artificial; there are currents passing from the longitudinal to the transverse portions,—be the distance great the current will be more intense, and vice versa.* This depends, according to Du Bois-Reymond, upon the peculiar electrical condition of the molecules of the muscle. He supposes that a muscular fibre is made up of electrical molecules, called *peripolar molecules*, and that each molecule has an equatorial belt showing positive electricity; this positive belt is placed between two polar regions of negative electricity (as shown in figure).

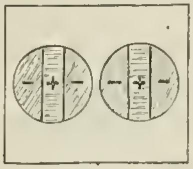

Fig. 1.

In a transverse section the negative poles are bare, and consequently the current flows from the positive longitudinal to the transverse section.

This is what is called the reflecting galvanometer,† which is very sensitive.‡

For the purpose of experiment I use the gastrocnemius of the frog [preparation made], and place its longitudinal surface on the cushion* of the galvanometer, its transversely cut surface I bring to the other cushion.

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* Illustrated by diagram.

† The instrument used was a reflecting galvanometer on Sir W. Thomson's principle, of 5,000 Ohm's resistance. Instead of employing the ordinary coal-oil lamp, the calcium light was substituted, thus enabling, by the projected reflection, all present in the lecture-room to follow the deviation on the scale.

‡ Diagram and description of instrument followed.

Now watch the spot of light [at zero on the scale]; as the transverse surface touches the second cushion you see the instant deflection shown by the moving spot of light. I place the muscle in the opposite position on the cushions, and you perceive the deflection is in the opposite direction.

Thus, gentlemen, you see there are electrical currents in muscle so long as it is in a living condition. Next, suppose I kill this muscle by immersing it in hot water, and then attempt to find these currents [experiment made]. They cannot be found, which demonstrates to us the fact that during *life only* these currents existed.

There are various other currents found in connection with the living body.

Should a piece of nerve be placed between the electrodes, or cushions, in the same manner as the muscle, we shall find that while the nerve is living it will give a variation which follows the same law as that which was observed in the muscle.

If the nerve be killed by dipping it in hot water, it loses its irritability, and the currents disappear. This nerve-current is modified, as we shall see further on, when certain constant electric currents are passed through the nerve.

At the preceding lecture I told you that when a muscle contracts a wave passes through it; if the muscle itself were stimulated, a wave passed that could be appreciated, and when the nerve which supplied the muscle was stimulated, a large number of waves were developed, and in this manner the contraction became very rapid.

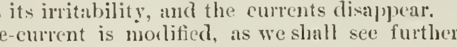

Fig. 2.
MUSCLE STIMULATED.

I propose to show you this morning, if possible, the wave of muscular contraction following the stimulation of the muscle itself. Before making the experiment, we wish to eliminate all action of the nerve; for the purpose I introduce into the body of this frog a sufficient quantity of woorara to paralyze all the motor nerves of the animal. In this way we remove all nerve influence from the muscle, leaving the muscular irritability.

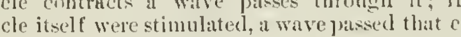

Fig. 3.
NERVE STIMULATED.

I now decapitate the animal [frog being completely paralyzed], amputate the leg, and separate the gastrocnemius muscle. I next attach a ligature to the tendo Achillis, to be used for stretching the muscle, separate the remaining muscle from the bone, leaving the gastrocnemius as free as possible, and place another ligature upon the bone, to be used also for the purpose of holding the muscle tense, and lay the preparation in this little trough.†

Knowing the rapidity with which the cylinder revolves, and its diameter, it is very easy to calculate the rapidity of the transmission of the wave,* which [experiment] is about forty inches in one second.

PHTHISIS PULMONALIS.

By FRANCIS DELAFIELD, M.D.,

LECTURES ON PATHOLOGICAL ANATOMY AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

GENTLEMEN:—We will now pass to the study of those lesions in the lungs which are usually classed together under the names of pulmonary phthisis, tuberculosis, or consumption. You are doubtless aware that much difference of opinion exists as to the real nature of these lesions, and you may even have been discouraged by reading the different views expressed in your text-books concerning them.

It is my wish to try to render the subject somewhat plainer to you, by stating as definitely as possible what the terms of the problem are which we are called upon to solve.

One of the first points which strikes us in our study of this question is that we have to deal with three distinct conditions—scrofula, tubercles, and inflammatory products. Let us, therefore, consider these three conditions separately, and then try to see how they are related to each other.

Of scrofula we see so little in this country that it is difficult for us to appreciate the prominent place it holds in the minds of physicians in European countries. It is a condition which is hardly susceptible of a definition, and yet it is not hard to understand what is meant by the term. It means this: When an individual acquires an inflammation of a mucous membrane, of the skin, of the joints, of the bones, of the genito-urinary apparatus, or of almost any part of the body, such an inflammation usually runs an acute course, and terminates in resolution, or in suppuration, or in the formation of organized new tissue. But if the inflammation, instead of doing this, simply reaches a certain point and stays there, and then, instead of resolving, or of suppurating, merely goes through a succession of degenerative changes, such an inflammation is said to be scrofulous. The scrofulous inflammations have several well-marked characteristics. They are very slow in their progress; they are very rebellious to treatment; they are accompanied by an extensive cellular infiltration of the inflamed parts, so that when the degenerative changes ensue there is large destruction of tissue. The degeneration which occurs in the products of such a scrofulous inflammation is peculiar in its nature; it is commonly called cheesy degeneration, and consists in the transformation of the products of inflammation into a dry, yellow mass composed of amorphous granular matter. Examples of this form of inflammation will at once occur to you. Caries of the vertebræ, hip-joint disease, white swelling of the knee-joint, scrofulous orchitis, and enlarged lymphatic glands are all of frequent occurrence. Of the scrofulous inflammations of the skin and mucous membranes we see but little in New York.

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* Cushions are *non-polarizable electrodes* to prevent any extraneous currents from forming, which produce errors.

† The trough, made of hard rubber, has a post at one end, to which the bone is made fast; at the other end the ligature, attached to the tendo, passes over a pulley and is weighted to keep the muscle stretched. Two levers lie across the muscle, one near the tendo, the other near the bone, the distance between being accurately measured. Both levers are in communication with writing levers, arranged so as to record exactly, one above the other, on the cylinder.

* The irritation was accomplished by a single induction shock applied to the end of the muscle nearest the bone. As the various portions of the muscle became thickened during contraction, first one lever recorded and then the other; thus producing curves as in Fig. 2. Had all parts of the muscle contracted at the same instant both tracings would have been made at the same instant, Fig. 3. The cylinder was revolving once in one second. Circumference of cylinder 42 centimetres. By means of a recording tuning-fork the exact time can be most easily obtained. In Fig. 2 the vibrations of the fork are recorded just under the lever tracings.

You will see at once that such inflammations as these, running this peculiar course, can be explained in two ways. We may say that a certain number of individuals are born with, or acquire the scrofulous diathesis—that they are scrofulous persons—and when any part of their bodies becomes inflamed, that in consequence of this scrofulous diathesis, the inflammation takes on the scrofulous character. Or we may hold that, just as we find croupous, or catarrhal, or suppurative inflammation occurring in different individuals, or in the same individuals at different times, so we may find the scrofulous inflammation; and that it is no more necessary to suppose a scrofulous diathesis than a suppurative, or a catarrhal, or a croupous diathesis.

Our views on this subject can hardly fail to be influenced by our surroundings. In Germany or in France we see great numbers of persons, especially children, who at once strike us by their unhealthy appearance. We see that every inflammatory process set up in them takes on the scrofulous character. We see their faces scarred with scrofulous sores, their glands swollen, their bones destroyed, and it seems natural to class them all together as the victims of some constitutional disease.

In this country, however, our experience is somewhat different. We see, indeed, a certain number of such unhealthy persons, but we also see the same scrofulous inflammations occurring in persons otherwise healthy. We see caries of the spine produced by injuries in healthy adults; we see healthy children attacked by hip-joint disease, recover from it, and go through a long life in perfect health; we see lymphatic glands pass through all the stages of scrofulous inflammation and degeneration without any permanent effect on the health of the patient. So here it is not unnatural for us to think it possible that this form of inflammation is merely one of the natural varieties of that process.

Two other questions concerning scrofulous inflammation are still to be considered: 1st. Are tubercles present in scrofulous inflammation? 2d. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle.

1st. Are tubercles present in all scrofulous inflammations? We find this question answered in four ways. Some hold that a scrofulous inflammation is really nothing but the infiltration of the affected part with tubercles. Some hold that there is first a formation of miliary tubercles, and that these become cheesy and are accompanied by inflammatory changes. Some hold that the process is simply an inflammation, succeeded by degeneration, and that no tubercles are present. Some hold that the process is an inflammatory one of a peculiar nature, resulting in the formation of a cellular tissue of low vitality, and that this process is identical in its nature with tuberculosis. It is easier to point out the defects in these different theories than it is to construct a better one. Probably the entire truth in this matter has not yet been reached.

2d. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle? This is a question which is now very generally answered in the affirmative—perhaps too hastily. This opinion has been formed in great measure from the results of experiments made on animals. We must therefore consider here the artificial inoculation of tubercle. Attempts to inoculate tubercle artificially were made at quite an early period.

TUBERCLES—INOCULATION.

History.—Kortum, 1789, Paris, rubbed fluid matter from a scrofulous ulcer into the neck of one boy, and inoculated another boy with the same matter, in the same place, but without results.

Hebréard, 1802, inoculated three dogs with matter from scrofulous ulcers, but without results.

Salmade, 1805, inoculated a number of animals with scrofulous matter, but without results.

Lepelletier, 1810, inoculated four guinea-pigs, but without results.

Cruveilhier, 1826, injected mercury into the trachea, arteries, and veins of animals, and produced multiple abscesses, which he called tubercles.

Villemin, 1865, read his first memoir, giving his experiments with gray tubercles on rabbits, and concluding that tuberculosis is a specific affection, like syphilis, that it has its cause in an inoculable material, and that it can be easily inoculated on rabbits.

In 1866 he published his second memoir, and in 1868 his book on the same subject. He inoculated rabbits from men, from cows, and from other rabbits; also guinea-pigs, dogs, cats, and sheep. In dogs and cats he obtained no well-marked results, in sheep no result. The matter which he used was gray tubercles from the lungs and serous membranes; the cheesy infiltrated matter from lungs, and the cheesy glands, sputa and blood of phthisical patients. With all these matters he obtained positive results. In the lungs, liver, spleen, and serous membranes of the animals inoculated he found numbers of small gray tumors, identical in appearance with the gray miliary tubercles of men.

In four cases he produced yellow, infiltrated, partly softened, cheesy lobules in the lungs, and in one case a cavity.

From these experiments he deduced the conclusion that tuberculosis is a specific, inoculable disease, like syphilis; that gray and yellow, isolated and infiltrated, are all of the same nature; that they have no specific anatomical elements, but that the proof of their nature is their inoculability.

Lebert, 1866, repeated Villemin's experiments on rabbits and guinea-pigs, and confirmed his conclusions. After this he went on to inoculate with miliary tubercles, cheesy infiltrated tubercles, cheesy lymphatic glands, portions of cancer, mercury and charcoal. From these experiments he concluded just the opposite. That tubercles are not specific nor inoculable. That they are simply the result of circumscribed inflammations; that they have no specific elements. In one case, in a guinea-pig, inoculation of peritoneal granulations gave rise to cavities in the lungs.

Hérard, 1867, inoculated four rabbits, two with gray granulations and two with cheesy infiltration. The first two succeeded, the second two did not, from which he concluded that gray tubercles and cheesy infiltration were different.

Colin, 1867–1868, one of the commission appointed by the Paris Academy, made two reports embracing experiments on forty-six animals, rabbits, guinea-pigs, dogs and sheep. He deduced the following conclusions:

1. Inoculation of gray and yellow tubercular matter produces tubercles.

2. It is most probable that the tumors produced by inoculation are partly due to the material inoculated, and partly to the suppuration produced around the inoculated material.

3. The extent of the lesions produced is in proportion to the quantity of material inoculated.

4. It is the tubercular material itself, and not any virus, which is taken up by the lymphatics and deposited in the different organs.

5. The deposits in the lungs, when they are firm, shining and semi-transparent, are certainly tubercular; when they are opaque and yellow, their nature is not so certain.

Behier, Pidoux, Vulpian, and Empis inoculated with various results.

Clark, of London, 1867, produced gray tubercles in rabbits by inoculation with gray tubercles, and in two cases with non-tubercular matter.

Saunderson, 1868, produced gray tubercles in guinea-pigs, by inoculation with gray tubercles, pus, non-tubercular products, and by causing chronic suppuration with setons.

Wilson Fox, 1868, inoculated 117 guinea-pigs, and 12 rabbits.

He inoculated gray tubercles; red, gray and cheesy hepatization, pus, sloughs from wounds, waxy liver, putrid muscle, and used setons. He produced miliary tubercles in the lungs, bronchial glands, spleen, liver, omentum, and intestines. These tubercles were identical microscopically with those in man. Of 117 pigs 58 became tubercular and 6 doubtful.

Verga, Biffi and Mantegazza, 1868, in Italy, inoculated rabbits with the same results.

Waldenburgh, 1869, Berlin, inoculated seventy-one rabbits and twenty-eight guinea-pigs. He inoculated gray tubercles, cheesy glands extirpated during life, cheesy pus, gray tubercles, and cheesy glands preserved in alcohol, and catarrhal pharyngeal sputum treated with permanganate of potash. He also injected gray tubercles and inflamed glands rubbed up with aniline blue, and found the aniline in the miliary tubercles produced, in the white blood-globules and in some of the tissues.

He also inoculated a goat nine times with fresh matter and tissues preserved in alcohol. The animal's health was not affected, but tubercles were produced.

Most of the animals died of the disease. The tubercles produced were true gray miliary tubercles. They were found in the lungs, intestines, omentum, liver, spleen, kidneys, lymphatic glands.

Out of 100 animals thirty-four became tuberculous. He inferred that the tubercles were produced by the absorption of the fine particles of the inoculated matter, the circulation of these in the blood, their deposit in the different tissues, and their presence causing irritation and new growth.

Klebs injected tubercular matter into the abdominal cavity, and produced tubercles of the peritoneum and other organs. He regards the tubercles as formed in and propagated by the lymphatics.

Cohnheim and Frankel (1868) inoculated by introducing into the abdominal cavities of rabbits and guinea-pigs portions of tubercle, of fresh and putrid tissues of all varieties, also pieces of India-rubber, of paper, of lint, etc. The result of these procedures was always peritonitis. In many cases this killed the animals, in others the foreign body became encapsuled and was found surrounded by cheesy pus. In these cases miliary tubercles were found throughout the body. Cohnheim inferred that cheesy pus was the excitant of tubercle, and in proof of this he found that such cheesy pus, mixed with a solution of salt, filtered and injected into the blood-vessels, produced tubercles in dogs.

All these experiments, therefore, which seemed at first to demonstrate that tubercles could be inoculated like small-pox, resulted in this conclusion. In certain animals—guinea-pigs, rabbits and dogs—if we excite inflammation by introducing under the skin or into the peritoneum any foreign substance, the inflammation thus produced will often assume the scrofulous character. If it does so, there is usually a collection of cheesy matter at the point where the inflammation was excited; near this the lymphatic glands will be enlarged, and in the lungs and other viscera we will find miliary tubercles. It seems to be a natural conclusion from this, that scrofulous inflammation with cheesy degeneration produces foci of cheesy matter; this cheesy matter is absorbed, infects the entire body, and thus produces miliary tubercles.

This doctrine was very soon applied to the tuberculosis of man. It is now very generally believed that in many cases miliary tubercles are the result of auto-inoculation from a cheesy focus. Thus Niemeyer says that patients with chronic cheesy pneumonia are always in danger of infecting themselves and becoming tuberculous. Rindfleisch says that tuberculosis in individuals who are not scrofulous is a thing unknown. Hueter lays down the rule that if we find a cheesy lymphatic gland in any part of the body, we must extirpate it at once to prevent tubercular infection.

You will find, however, that in this country there are some difficulties in the application of this doctrine. These difficulties seem to depend on the fact already mentioned that here scrofulous inflammations are less frequent and less extensive. It is impossible to ignore the fact that we meet with cases of general tuberculosis without cheesy foci; and that we meet with extensive cheesy deposits without tubercles. So that we may be permitted to doubt whether the law of the production of tubercles from self-inoculation with cheesy products is as absolute a one as has been stated.

II. Our next step must be to inquire what products of chronic inflammation do we meet with in the lungs? These products are all comprised under two heads—products of inflammation within the air cells and bronchi, and products of inflammation between and outside of the air cells and bronchi. We have already seen in studying pneumonia that there is a form of inflammation in which the air cells are filled with fibrine and large, nucleated cells of epithelial character, while the bronchi are filled with pus cells. This is one of the forms of pneumonia which we meet with in phthisis. We have also seen that there is another variety of inflammation affecting the interstitial connective tissue of the lungs, and called interstitial pneumonia. All the inflammatory products found in phthisis are due to the existence of one or both of these varieties of pneumonia.

What lesions do we find then in the lungs which are undoubtedly the results of inflammation? The intra-alveolar pneumonia fills the air cells with fibrine and epithelium, and the bronchi with fibrine and pus. Wherever this takes place the lung becomes solid—hepatized. This hepatization is at first sometimes red, sometimes of a gelatinous, gray color. The absence of a first stage of red hepatization in some cases is due to the fact that the inflammation is from the commencement a chronic one, that it has no acute stage in which the blood-vessels are congested and the blood escapes. The products of inflammation thus formed frequently degenerate, then the hepatized lobules are of a more opaque gray color, or whiter, or yellow and cheesy. They may remain cheesy for an indefinite period, or they may calcify, or the walls of the air vesicles may be so compressed that they lose their vitality, become necrotic, soften, break down and form cavities. The same degenerative changes take place in the pus and fibrine which fill the small bronchi.

The extra-alveolar or interstitial pneumonia results in the production of new fibrous tissue. This new tissue is sometimes dense and hard, composed of fibrillated connective tissue with few cells, sometimes is softer and looser, sometimes is composed of reticulated connective tissue. It resembles closely the new fibrous tissue which is produced in other parts of the body by chronic inflammation. This new tissue is found thickening the pulmonary pleura, surrounding the bronchi and blood-vessels, traversing the lung in broad bands, mottling it with large patches or with minute nodules. It is either white, gray, or black in color.

When in the same lung both the intra-alveolar and the extra-alveolar forms of pneumonia continue as a chronic disease for years, the inflammatory products which result modify each other and give rise to a great variety of lesions. It is these complicated lesions which it is so difficult to distinguish from tubercles.

Original Communications.

COMMINUTED FRACTURE OF FEMUR IN A PATIENT ÆT. 83 YEARS; PLASTER-OF-PARIS DRESSING; RECOVERY.

By R. W. GIBBES, M.D.,

OF COLUMBIA, S.C.

Mr. J. H. W. (ætat 83, 5 feet 7 inches high, weight about 165 pounds, of remarkable physique and activity, then the regular mail-carrier between the different railroad depots and the Columbia post-office, a soldier in the war of 1812) fell over his piazza railing (about 18 feet) on the night of January 2, 1873; thought he struck on his right hip; he managed to raise himself up, and was discovered standing and holding to a firm post which happened to be just at hand.

I found him a few minutes after (9½ P.M.) in bed, with right foot everted and a considerable shortening of the limb, and had no difficulty in detecting an oblique fracture below the trochanters. I readily reduced it, and left him with an opiate. After a necessary delay of about fifteen hours, with the efficient aid of my friend Dr. B. W. Taylor, and several of the younger members of the profession, the plaster-of-Paris dressing was satisfactorily applied, after the well-known method in vogue for several years past in Bellevue Hospital; my venerable patient being kept for some time suspended above the table and fully under chloroform, etc., etc.

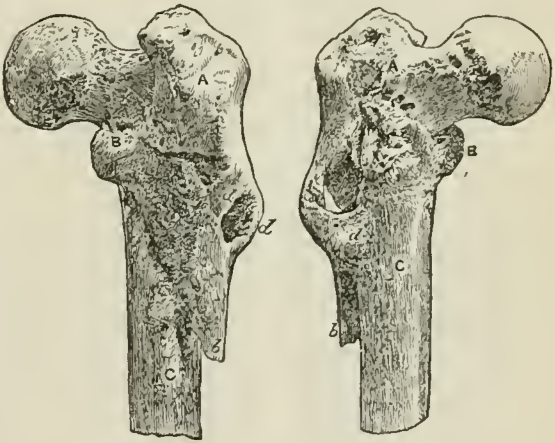
On the 6th we had him on crutches, and assisted him in making a few steps, but as he had no desire to try himself again, it was not until January 21 that he began to walk around his room daily. On February 14th (forty-three days after the accident) the apparatus was removed, and a simple roller applied for a few days.

Firm union took place with apparently a very moderate amount of provisional callus, and he soon walked well with his crutches up and down stairs, being disposed to abandon them even when in the house.

After three or four months, careful and accurate measurements of the limb were taken, and the shortening found to be just three-fourths of an inch.

On the 29th of June following Mr. W. died of apoplexy, and I was kindly permitted to remove and preserve the bone.

The specimen presents, as far as I know, a unique form of fracture. It shows almost the ordinary simple oblique fracture immediately below the trochanters, complicated—or rather, as I think we may say, *relieved*—by another line of fracture, by which the lesser trochanter and a fragment of the posterior portion of the shaft are separated, thus making three distinct pieces. The separation of the middle fragment with the trochanter minor is to be regarded as a happy circumstance, as it no doubt conduced to the good results of the treatment, by at least preventing angular deformity. The inferior line of fracture commences at the lowest point of the anterior inter-trochanteric line, and extends obliquely, downwards and outwards, to a point immediately external to the linea aspera, and four inches below the lesser trochanter. This separated the shaft from the neck and trochanters. The superior line begins from the inferior line, at a point about three-fourths of an inch from and on a level with the trochanter minor; arching upwards, it passes over that prominence, crosses the posterior inter-trochanteric line at right angles, and then descends outwardly nearly parallel with the inferior line. This separated the trochanter minor, along with a wedge-shaped portion of the shaft, as is seen in Fig. 1, exhibiting the specimen from behind. The three fragments, A, B, and C, brought under the influence of the muscles and the weight of the limb, were considerably displaced. The middle one (B) was drawn inward superiorly by the psoas, while its sharp inferior extremity was removed about half an inch out from the shaft by the action probably of the *gluteus maximus*, since on this fragment is located the whole of the "gluteal ridge;" thus the small trochanter is made to assume a position three-fourths of an inch nearer the head of the bone than it occupies in the normal state, whilst happily the middle and inferior fragments are held closely applied to each other, except at their extremities. By the action of the gluteus medius and minimus, as well as of the pyriformis, gemelli, and obturators, the superior fragment was made to undergo a change in position, not unlike that induced in the middle one, its inferior point being tilted outwards, while the head is drawn in and the wedge-shaped middle fragment is held tightly between the other two, the shaft or lower one being pulled up until it struck the arch and could shorten no more.



At all points where the fragments were in contact, firm bony union has occurred, and, indeed, it is very difficult to trace the superior line of fracture where it arches around the trochanter minor. From the posterior edge and external point of the upper fragment there are growths (*d, d*) of new bone—the first one reaching and becoming firmly attached to the middle fragment only—another below and more extensive, binding together strongly all three fragments.

The cancellous structure of the bone is much expanded, the cells being very large, and they contained an abundance of fat.

NOTE.—Prof. F. H. Hamilton, to whom the case was sent, has written us the following note bearing upon the same:

"DR. SHRADY—My dear Sir: I have sent you the above very interesting case, by request of Dr. Gibbes; who has asked me, also, to add any comments I may see fit to make.

"In addition to the fact that the accident, as described and as illustrated in the specimen now before me, is quite unique, and in addition to the other points of interest noticed by Dr. Gibbes, I wish to call attention to one more very practical point, namely, that the apparatus, although it performed all, perhaps, that any other apparatus could have performed, yet it did not prevent shortening—that, in truth, the femur shortened until it was arrested by the contact of the upper end of the lower fragment with the neck.

"My impression is, that it is shortened much more than three-quarters of an inch, but this is not material; within that limit the apparatus was unable to prevent shortening. FRANK H. HAMILTON."

Progress of Medical Science.

HEMP COMBINED WITH PLASTER-OF-PARIS FOR SPLINTS.—Dr. Beely reports from the clinic of Prof. Schönborn, of Königsberg, that for about a year they have been using a combination of hemp with plaster-of-Paris in place of any similar apparatus, and he recommends it very highly both for its cheapness and various other good qualities. They have now tried it in about fifty cases, comprising the following injuries or operations: simple and compound fractures, affections of the joints, wounds of tendons, in deep wounds of the soft parts of the extremities, resections, in rachitic curvatures and in club-foot. The materials employed are the ordinary plaster-of-Paris used by surgeons, and hackled hemp, the fibres of which must lie as parallel as possible. The hemp is made into little loose bundles about an inch to an inch and a half wide, a third of an inch thick, and fifteen to twenty inches long. Four or five such bundles suffice to make a dorsal splint for the leg and foot of an adult. Having oiled the skin the bundles of hemp are dipped into the thin paste of plaster and water, the excess squeezed out by drawing them between the fingers and then laid directly upon the skin so as to be parallel with the axis of the limb and slightly overlap each other until the required size and thickness has been obtained, and it should be from a third to a half an inch. Reinforcements can be added where needed, and these will adhere firmly even if applied several days after the original apparatus. Additional plaster may be rubbed on to give a smooth and finished appearance. The apparatus becomes firm after five or ten minutes, and may be rendered waterproof after drying by applying an alcoholic solution of shellac. If desired, a flannel bandage may be carried around outside of the plaster apparatus and so incorporated with it. The limb so incased may be suspended by incorporating into the splint some little wire loops or eyes, in the ordinary way. Dr. Beely proposes at some future time to give more details of cases treated in this way. Among other recommendations of the method are the cheapness of the material, the readiness with which it adapts itself to the form of the body, is porousness, the durability of the splint so made, and the facility of its application.—*Berl. Klin. Woch.* April 5, 1875.

THE BLOOD AND SPLEEN IN PYÆMIA.—Birch-Hirschfeld has found the average weight of the spleen to be about twice as great in cases of pyæmia with large metastases as in those phlegmonous cases in connection with surgical injuries which ended fatally without considerable deposits in remote organs. In the latter its weight was but little above the normal. He therefore regards the swelling of the spleen in pyæmia as a reaction of the organ against the infectious material in the blood. Examining the blood in such cases, he is now inclined to believe that formerly he over-estimated the number of free organisms present; for after taking the blood, with suitable precautions, from a recent corpse, he finds that free bacteria are not constantly present, and their actual number is small. He believes, however, that the fine granulation of the white blood-corpuscles in pyæmia is partly due to sphero-bacteria. In such cells chains of three or four links are often seen, and they differ from fat in optical characters, while they also remain connected together when the white blood-corpuscles are destroyed. The degree of this granulation varies exceedingly, sometimes involving all the white blood-corpuscles, and these latter are often found in as high proportion as 5 to 100. These intra-cellular sphero-bacteria, he believes, are also found in the pus cells of puerperal peritonitis, as mentioned by Waldeyer. Though maintaining the opinion that sphero-bacteria are found in the blood of pyæmia, he is not willing to declare them to have a causal connection with the disease. It is suggested that the histological changes of the cells of the substance of the spleen are completely analogous to those of the white blood-corpuscles.—*Report of the Session of the Versammlung Deutscher Naturforscher und Aerzte zu Breslau in Allg. Med. Cent. Zeit.*, April 7, 1875.

INGRAFTING OF TENDONS.—M. Tillaux has practised this operation in a patient who had laceration of the extensor tendons of the ring and little fingers. The operations were done a month after the accident and when cicatrization was complete. The digital extremities were easily found, but not so the superior extremities. Accordingly the operator incised the tendon of the common extensor, and refreshing the superior ends of the broken tendons of the ring and little fingers, slid them into the place prepared for them, thus grafting them in. The operation was successful, and the patient recovered the use of his fingers. —*Journ. de Med. et de Chir.*, March, 1875.

ADULTERATION OF HOPS.—A number of samples of beer and porter were examined at the chemical laboratory of the Upsala University, and in addition to the lupuline, such foreign substances as absynthine, quassine, and menyanthine were found. The brewers from whom the specimens were obtained denied having used any bitter substance but hops. A number of specimens of hops, coming from Germany, were then examined by Dr. Almén, and it was found that some of them contained tincture of absinthe, etc. It is probable that hops which have become old, damaged, or otherwise unsalable, are freshened up by the addition of the tincture, and thus the brewer unconsciously prepares adulterated beer and malt extracts.—*Upsala Läkareför. Förhandl.*, X., 5.

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THE MEETING AT LOUISVILLE.

Again we have occasion to witness the wisdom of the change in the plan of organization of the American Medical Association in regard to the settlement of purely ethical questions. The meeting just held in Louisville is the second one since the Judicial Council has had an existence, and already we begin to see the Association taking a stride towards respectability and usefulness, which it has not done for many years past.

The new arrangement of the Sections is another item which must not be lost sight of in the estimation of the benefits of the Association, not only to its individual members, but to the profession at large. The appointment of representative men as presiding officers of these bodies has been attended with the best of results in securing first-class contributions to the transactions and in stimulating interesting and profitable discussions. On the whole, the meeting was a success. Very many questions of great importance were brought up, and very prudently disposed of. A reference to our report in another place will give our readers a better idea of the extent and character of these topics than any general remarks which we may offer upon them.

The nomination of officers under the new plan of selection of State delegates was attended with less of that caucusing and wire-pulling which have characterized the working of the committee heretofore. There is no doubt that the selection of members of the Nominating Committee by the different State Societies is calculated to correct a great abuse on the part of certain delegates, who always managed to get the most influential positions when they were farthest away from those who knew them. Under the present arrangement, however, those who have the best reputations at home have the best opportunities for exercising their influences in the central body. The system deserves a more extended trial. We say extended, because some of the States, either not being aware of the regulation regarding the election of the members of the Nominating Committee, or not caring to be too particular to place the best man at the head of the list, did not fairly represent their influences.

The attendance on the meeting was quite large, but as is generally the case the delegates ware largely recruited from the more immediate vicinity of the place of meeting. It is impossible to expect it otherwise. While there are always a few who will be present at every meeting the great majority of members are entire strangers. We have already alluded to the disadvantage of this state of affairs to the general welfare of the Association, more especially in regard to medical legislation. But even this is in a measure removed by the appointment of the Judicial Council, to whom all matters bearing upon medical politics are referred.

A HOMŒOPATHIC MEDICAL DEPARTMENT AT ANN ARBOR, MICH.

The Legislature of Michigan have just passed the following bill, authorizing the regents of the University to establish a homœopathic medical college as a department of the State University, and appropriating $6,000 per annum for its support:

> Section I.—The people of the State of Michigan enact: The Board of Regents of the University of Michigan are hereby authorized to establish a homœopathic medical college as a branch or department of said University, which shall be located at Ann Arbor.
>
> Section II.—The Treasurer of the State of Michigan shall, on the first day of January, 1876, pay out of the general fund, to the order of the Treasurer of the Board of Regents, the sum of six thousand dollars, and the same amount on the first day of January of each year thereafter, which moneys shall be used by said regents exclusively for the benefit of said department.

It is entirely premature to say what will be the action of the now-existing medical department, but it will be seen that the homœopathic school is to be a separate college. The regents have not met since the passage of the bill, so that we cannot even say whether they will accept the grant. Twice previously they have refused to obey the legislature in this matter, but on both those occasions the homœopathic department was made a branch of the existing medical school, thus mixing those two systems of teaching and practice. As this objectionable feature is removed in the present bill, we can surmise that the regents will now accept the grant, and establish a new college.

The present medical department is almost self-sustaining, the expenses over and above students' fees being about $1,200 to $1,500 per annum.

MEDICAL SOCIETY OF NEW JERSEY.

The Medical Society of the State of New Jersey will shortly hold its one hundred and ninth annual meeting. It is needless to say that the attendance will be good. This is always the case. One of the oldest

Societies of its kind in this country, it commands an influence over the profession of its State second to none of the kind anywhere. The meetings are always interesting, and we doubt not that the forthcoming one will be a model of its sort. By reference to the arrangements for the next meeting, which we publish in another column, it will be seen that every effort is made by the committee to make the meeting worthy the expectations of the most sanguine. We shall endeavor to find room for an abstract report of the proceedings of the association in a future number.

THE NEW BUILDING FOR THE NEW YORK ACADEMY OF MEDICINE.

THE next stated meeting of the Academy will be held in its newly acquired hall, 12 West Thirty-first Street, on Thursday evening, May 20, 1875, at eight o'clock precisely, when the Committee on Ways and Means will pass the property to the custody of the Trustees, and present the results of their labor thus far in carrying into effect some of the original intentions of the organization. It is confidently expected that the exercises on that evening will be conducive to the good of the profession. That this building will prove sufficient for temporary purposes only is quite certain; for in this great city the wants of the medical profession increase with its numerical growth, and the time must soon come when more commodious quarters will be required even by the Academy.

Reports of Societies.

AMERICAN MEDICAL ASSOCIATION.

TWENTY-SIXTH ANNUAL MEETING, HELD AT LOUISVILLE, KY., MAY 4, 5, 6, AND 7.

Tuesday, May 4—First Day.

THE Association was called to order by Dr. E. Richardson, the Chairman of the Committee of Arrangements, after which prayer was offered by the Rev. Dr. Lamar. Dr. Toner, of Washington, D. C., then introduced Dr. W. K. Bowling, of Nashville, Tenn., the President elect, who called for the report of the Committee of Arrangements. The Chairman of the Committee of Arrangements, after welcoming the members in an appropriate address, made a detailed report of the plan for the general meetings of the Association and of the different Sections, the former occupying the morning session from 9.30 to 1 P.M., the latter the afternoon session, commencing at 3 o'clock. Dr. N. S. Davis, of Chicago, announced the presence of Dr. Botsford, the President of the Canadian Medical Association, and moved that he be invited to take a seat on the platform. Dr. BOTSFORD made a few remarks in response to the compliment, after which

THE PRESIDENT'S ANNUAL ADDRESS.

The PRESIDENT, Dr. W. K. BOWLING, delivered his annual address. After sketching the history of the Association from its foundation to the present, and noting the radical changes which have from time to time been effected in its plan of organization, he remarked that it was now in a condition to exercise its influence in the direction of shaping the educational interests of the profession.

"Let it be solemnly resolved by this meeting," said he, "that it shall be regarded as derogatory to the character of any physician, in any part of the United States, to take under his care as a student of medicine any one who cannot exhibit evidence of having taken a degree in a regularly chartered college, or a certificate of qualifications necessary to become a student of medicine, from a board of examiners appointed for that purpose by the American Medical Association. This will do the work.

Territories and new States, in a country like ours, in a formative state, will provide themselves with medical helps in the mode we have described, which, existing outside of this body, and independent of it, will occasion it no concern whatever. Nor would the schools suffer pecuniary loss under this rule. When it was generally known, as it would soon be, young men desiring to enter the profession would earnestly devote themseves to the duties of preparation, nor relax their efforts till possessed of the degree or the certificate.

Again, many educated young men, under this rule, would turn their attention to medicine, whose votaries were to consist of their peers, who, under the existing rule, would not risk its levelling influences. Let the doctorate imply something more than "two full courses of lectures, the last of which in this institution." Besides, it would give the college an ample excuse for not receiving every uneducated, lazy dolt who desired to make a living under false pretences.

There is nothing really binding in the rule suggested. The only power in the matter is the great moral weight of the Association. It enacts nothing, but simply asserts what every member of it knows to be right. After a few years such a certificate of the Examining Board, or evidence of a college degree, might be declared necessary in order to enable an applicant for membership in this body to secure admission; for surely it is the common privilege of all organizations to judge of the qualifications of their own members; then will the certificate of membership here pass the holder anywhere as a gentleman and scholar.

It is precisely in this way that the medical department of the army and navy are purified. The adoption of this addition to the code of ethics would furnish medical gentlemen an excuse for getting rid of applicants for office study whose preliminary education they know to be defective, and whose relations they would dislike to offend by saying so.

Referring to the general progress of medicine during the past century, he said:

During the past year, a "scientist," whatever that means, having the supervision of a department of a widely-circulated political newspaper, published therein that the medical profession had not advanced a step in seventy years; and this cry, from many quarters, so prolonged and persisting, has established a popular belief. "To enlighten and direct public opinion," it is proper to state that a member of this body, our late lamented lexicographer, among the chiefs of learning and industry in his generation, and alike an ornament to his profession and to human nature, "to meet," as he writes, "the progress of medical science," in the sixth and seventh editions of his dictionary, added nine thousand terms and subjects, and in the eighth edition, twenty years ago, the same progress required four thousand more terms and subjects, and the edition of 1865, to the same end, required sixty-five pages of new terms and subjects. That a profession, stationary, or in an active retrograde movement from some fancied height, should require all these new terms and subjects during its decline, is simply ridiculous, and those among us who believe this, and who have aided in fixing this belief upon the public, have, for the time, but yielded to the flattering and seductive influences of a generous imagination.

Old politicians, being crowded out, very naturally conclude, that the new ones are but imitating Phæton's drive to destruction, and that the country, under their guidance, must inevitably go to pieces. Old men always have their lines cast in degenerate times, and the only consolation remaining to them is the reflection that their degenerate days will be the grand old time of patriotism, honor, and manhood of their descendants. One need no better authority than all the editions of Dunglison's Dictionary to assure him that, during this century, particularly, the progress of medicine, in all the countries of civilization, has been onward—right on—receiving not the slightest check from internal commotions nor outward pressure, but, like the tread of a mammoth, literally crushing out whatever accident or design placed upon its pathway.

That our own country has, during this period, contributed as much to this development as any other, no unprejudiced observer will dispute. During the last generation, especially, it has figured conspicuously on the frontier of medical progress; and that this Association has accelerated the movement is equally beyond controversy. As the iron-shod steed, speeding along the night-shrouded turnpike, illumines his way by the fire his own progress strikes from the resisting rocks, so this body, in doubt and darkness, often, when scorners smited and good friends hesitated, caught fire from the very friction of opposing circumstances, and emerged, self-glorified, on its march to triumph.

At the conclusion a vote of thanks was passed, and the address was referred to the Committee on Publication.

On motion, Dr. S. D. Gross, of Philadelphia, was granted a portion of the morning session of Wednesday for the delivery of an address on "Venesection as a lost art."

After the transaction of some miscellaneous business, the Association adjourned until Wednesday, May 5th, at 9.30 A. M.

WEDNESDAY, MAY 5—SECOND DAY.

The Association was called to order by the President, after which the following delegates were proposed for permanent membership: Drs. C. J. Walton, of Mansfield, Ky.; W. S. O'Neal, Berlin, Ky.; E. D. Force and S. H. Horner, of Louisville; W. C. Hall, Franklin, Ind.; R. D. Huley, Elizabethtown, Ky.; C. J. Renfro, Pleasureville, Ky.; and W. C. Tucker, Danville, Ky.

The announcement of additional delegates was then made, and also the following members by initiation: Drs. W. B. Rodman, of Frankfort, Ky., and E. Poynter, of Midway, Ky.; J. H. Rock, of Chicago, and Drs. R. Bolling and S. O. Wetherbee.

NOMINATING COMMITTEE.

After a recess of fifteen minutes the following Nominating Committee was reported: Alabama, W. O. Baldwin; Arkansas, D. A. Linthicum; Connecticut, L. Williams; Colorado, C. Denison; District of Columbia, J. Eliot; Florida, E. T. Sabal; Georgia, T. J. Curtsy; Illinois, H. A. Johnson; Indiana, W. Lomax; Iowa, J. Williamson; Kentucky, Joseph W. Thompson; Maryland, J. Morris; Massachusetts, Nathan Allen; Michigan, J. H. Beach; Maine, S. H. Weeks; Minnesota, E. C. Cross; Missouri, T. Kinnard; Mississippi, B. F. Whitehead; New York, J. R. Wood; New Jersey, T. B. Flavier; North Carolina, N. J. Rittman; Ohio, W. W. Dawson; Pennsylvania, E. A. Wood; Rhode Island; South Carolina; Texas, E. T. Easly; Tennessee, T. A. Atkinson; Virginia, J. E. Chancellor; Wisconsin, E. P. Russell; West Virginia, John C. Happ; United States Army, J. R. Smith; United States Navy, Jas. Wilson.

AN APPEAL FROM THE CANADIAN MEDICAL ASSOCIATION.

The following communication from the Canada Medical Association was read and received:

MONTREAL, April 19, 1875.

W. B. Atkinson, Esq., M.D., Secretary American Medical Association :

DEAR SIR—As the time is approaching for the meeting of the American Medical Association, I have much pleasure in forwarding a copy of a resolution unanimously adopted at the last meeting of the Canada Medical Association, held at Niagara Falls on the 5th and 6th of August, 1874, and request that you will kindly bring it to the notice of your Association. The Canada Medical Association will meet this year at Halifax, Nova Scotia, on the first Wednesday in August, and would be much pleased at seeing, as heretofore, delegates from your Association, and I think it more than probable that our Association will be represented at your meeting by at least two of our members, one of whom will be our president, Dr. LeB. Botsford, of St. Johns, New Brunswick.

I am, dear sir, yours very truly,
A. H. DAUD, M.D., D.Cl.,
General Secretary Canadian Medical Association.

The resolution referred to in the foregoing letter was as follows:

"It was moved by Dr. Grant and seconded by Dr. Caniff:

"That, in consideration of the best interests of medical science, it is desirable that a medical conference should take place between the American and Canada Medical Associations, at some central point to be determined upon, and that the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of medical and surgical subjects on a common basis.

"The motion was carried unanimously, when Dr. Kingston, seconded by Dr. Botsford, moved:

"That in the event of such conference being determined upon, it would be desirable that the secretary of the Canada Medical Association notify the various local medical societies, so that our Dominion might take part in a manner worthy of the occasion and in keeping with the interests of medical science."

AN INTERNATIONAL CONFERENCE.

The following communication from Dr. E. Seguin, of New York, urging this Association to send delegates to Europe to confer with foreign medical associations in regard to the uniformization of clinical observations, instruments, scales, etc., was received and placed on file:—

To the American Medical Association :

MR. PRESIDENT AND GENTLEMEN—You have twice sent delegates to the British Medical Association, and kindred European societies, to invite them to consent to a plan of uniformity of methods, instruments, scales, and records of clinical observation. The proposition has become more opportune since the meeting in Paris of the convention for the adoption of uniform weights and measures by all nations, in which convention Professors Henry and Hilyard represent the United States, but in which the special wants of unity of measures of our profession are not represented. This proposition was approved by Sir Wm. Jenner, MM. Reynolds, Gibson, Stewart, Squire, Sydney, Ringer, Wilson, and Tilbury Fox in England; on the continent by MM. Marey, Charcot, Lorain, Potain, Lepine, Ollier, and Chaveau—all ready to open a commission in Paris and a subcommission in Lyons, in order to concert in your plan of uniform observation. This plan embraces the unity of clinical thermometers, and of thermometric scales, charts, etc.; a uniform graduation of the sphygmograph, myograph, spyrograph, æsthesiometer, dynamometer, globulimeter, ophthalmoscope, and other instruments of precision used in diagnosis, a uniform method of measuring and registering the hearing, and velocity of other sensory impressions, the regularity of co-ordinate movements, as the walk, and a uniform registration of all clinical cases according to their kind. Of this plan the International Medical Congress, meeting at Brussels, the 19th of September, proposes to carry out only one part, the uniform measurement and record of hearing by all nations. It is, therefore, important that the American Medical Association be represented this year at Brussels, in order to represent there the original plan of uniformization of clinical observations in its integrity and entirety.

Therefore the American Medical Association resolves to nominate new delegates, commissioned to again advocate in Europe the unity of clinical observations, and charges them to report progress in brief at the meeting in 1876. E. Seguin.

VENESECTION ONE OF THE LOST ARTS.

Dr. S. D. Gross, of Philadelphia, read an elaborate paper with the above caption, the tenor of which was to prove that extremes are dangerous, and that the time was not far distant when the "lost art" would enjoy a reactionary favoritism. He thought it was really saying too much, with our present extreme prejudices against venesection, that we should assume to be so much wiser than our fathers, who had lent their approval to a custom that had been sanctioned by ages of experience. Might we not, in going to the opposite extreme, do violence to a principle that was really conservative in its nature? It was the extreme view taken either way that was likely to occasion untoward results. It was the fashion of the present day to decry this kind of practice, and, like many other fashions, it was founded upon ideas that would not stand the test of reasoning investigation. Even disease itself, in some form or other, had often become fashionable. An instance in point was cited in reference to Louis XIV. of France, who was afflicted with a loathsome disease, with which the people of his court soon became fashionably inflicted, and which many of the higher classes affected. There was as much tyranny exercised by the opinion of an eminent authority (eminent because it was *foreign*) in support of improbable or questionable medical views, as there was in the mandates of the queen of fashion, foremost among whom in her time was the Empress Eugenie, and to which every woman felt herself compelled to yield, or else forego her influence and standing in the fashionable world. So with a majority of the medical profession, who abandoned voluntarily—or felt compelled so to do—old and once cherished opinions, in order that, by following new theories, they might not render themselves conspicuous by an adherence to the ancient régime. It was simply the fashion of the day. The speaker said that, though he was no prophet, nor the son of a prophet, the time was fast coming, if it were not already at hand, when a reaction would ensue in favor of the therapeutical effect of blood-letting, and the idle lancet be again resorted to as one of the main reliances in the treatment of many forms of disease, particularly in the acute stages; for, continued he, history is constantly repeating itself, and knowledge runs in a circle. There were times to bleed and times not to bleed, and these distinctions, wherein our fathers erred, we of this day and time are enabled to recognize readily and turn to valuable account. When we had acquired a more accurate knowledge of diseases, the tendency to run into extremes would be less characteristic of the profession if not avoided altogether.

The substitute for the lancet nowadays consisted in the administration of medicines that had a tendency to reduce the fulness, frequency, and power of the heart's action, and the extreme use of these was more dangerous than the one decried. Women in child-bed had often lost immense quantities of blood, more than an old-time physician could ever think he had occasion to draw, hemorrhages from various causes, and the continued and immoderate use of the lancet, in many recorded cases, in which no more blood came away because there was too little left to run, could be cited, and yet recovery followed, and the life-current was speedily introduced under a nourishing and sustaining after-treatment.

Cases of acute diseases, and those in other stages of development, were cited to prove the efficacy of a timely abstraction of blood from a vein, and individual cases were likewise produced, in which this feature of practice was proven to be the only one which insured a further lease of life or ultimate recovery.

ARMY STAFF RANK.

Dr. J. M. Toner, of Washington, Chairman of the Committee to Memoralize Congress on the Rank of the Medical Staff of the Army, offered the following, which was adopted:

The Committee (of one from each State) on the Rank of the Medical Department of the Army respectfully report: That, as soon as possible after the adjournment of the Detroit meeting of this Association, a form of petition to Congress was agreed upon, in which the unsatisfactory position of the medical corps was briefly stated, and the nature of the relief asked for indicated. This petition was circulated among the physicians of the several States by the members of the committee, and was very extensively signed. In connection with the petition, an explanatory pamphlet was widely distributed. It contained a "brief statement of the facts" connected with the subject, and a draft of a bill, the passage of which would have placed the medical corps on a satisfactory footing in the matter of rank. A copy of the pamphlet is herewith submitted. The bill, which was prepared after consultation with the Surgeon-General, and a number of the other medical officers of the army, did not propose to alter the number of medical officers now allowed by law, but merely provided that after thirteen years' service, medical officers should have the rank of major; after twenty-three years' service, the rank of lieutenant-colonel, and, after thirty years, the rank of colonel. Immediately after Congress convened last December, this bill was duly introduced in both houses, and in each read twice and referred to the Military Committee. During the rest of the session every effort was made to secure its favorable consideration. Three petitions from the several States were duly presented; copies of the explanatory pamphlet were sent to each Senator, and members were personally conferred with. These efforts were so far successful that before the month of December, the Military Committee of the House of Representatives agreed to report the bill to the favorable consideration of the House; but the press of other measures of greater political interest caused this to be postponed from time to time, until the session came to a close, without any action having been taken. It is believed, however, that the medical profession of the United States will not be satisfied with this inaction. Your committee have certainly found a gratifying unanimity of sentiment on the subject among the physicians of all parts of the country, and have been led to believe that it is their earnest desire that this Association shall continue to urge the claims of their brethren of the medical staff of the army upon Congress until such a law is enacted as will secure to them the share ot rank we believe they ought to enjoy.

It is hoped that the matter may be pressed at the next session of Congress with a chance of better success than it had at the last session. Much assistance will doubtless be rendered by those physicians who are personally acquainted with members of Congress by explaining the merits of the appeal made, but this Association certainly ought also to continue its efforts; and the passage of the following resolutions is therefore recommended:

Resolved, That this Association learns with regret that no action was taken by the last Congress upon its recommendation in behalf of the medical department of the United States army, and that we respectfully renew our petition, that Congress will enact such a bill for the benefit of the medical department of the army as will secure to its officers that share of rank and promotion to which we consider they are entitled, and which should be at least fully equal to that enjoyed by any other staff corps, or by the medical corps of the army.

Resolved, That a committee of five be appointed to call the attention of Congress to this subject, and the petitions which were forwarded to the last Congress by the physicians of the United States.

ADRRESS ON PRACTICAL MEDICINE.

Prof. Austin Flint, of New York. Chairman of the Section on Practical Medicine, next made his report on the discoveries during the last year. discussing the subjects of alcoholism, motor centres, new remedial agents, transfusion, and concluding with remarks on the natural history of crime. The changes of alcohol in the system, and its medicinal uses were dwelt upon at some length. Some held that alcohol passes into blood and is expelled through the emunctories unchanged, while others denied this and held that it was appropriated by the animal economy. Well-conducted experiments, however, went to prove that when alcohol was thus taken into the system, the proportion excreted by the kidneys, lungs, and skin is exceedingly small, the greater part being destroyed in the body. What becomes of it? This remains to be answered by farther experimental researches. Six hundred grains of absolute alcohol can be disposed of without injury to the bodily functions of a healthy adult. It is accordingly employed in the treatment of many conditions of disease, though its use is not based upon any ascertained facts concerning its elimination.

In regard to the subject of transfusion, he remarked that, while there were many experiments performed in the transfusion of the blood of one animal into the veins of another of unlike genus, and of the blood of a lamb into the veins of a man, himself a physician, in one instance, there were certain curious results noticed, but nothing positive had been elaborated that would justify the positive advocacy of any reliable feature or theory of practice. The subject was not without interest or promise, however, and afforded an ample field for any one whose zeal for the advancement of medical knowledge in that direction was equal to the task of an investigation, and which could hardly fail, eventually, to be of signal advantage to the profession.

The closing feature of the paper had reference to the natural history of crime, in which the query was announced concerning the possible connection of individual tendencies to the commission of crime with corresponding diseased conditions of the organization. It was very ingeniously and elaborately put forth, together with the possibility, finally, of medical treatment for such conditions, under specific classifications, as in the case of real diseases. This, of course, implied a discussion of the responsibility for criminal acts, which should, however, offer no hindrance to enlightened investigation.

The report was adopted and referred to the Publishing Committee.

INTERNATIONAL CONFERENCE AGAIN.

Dr. J. M. Toner made a report suggesting the organization of an International Medical Association, in which the profession of America should be represented at the meeting in Brussels. The report was referred to the Committee on Nominations.

On motion, the morning of the following day was apportioned as follows: Lecture on Surgery, by E. M. Moore, of New York, at 11 o'clock; on Obstetrics, at 11.40, by Prof. Byford, of Chicago; and on Hygiene, by Dr. Bowditch, of Boston, at 12.20.

THE ASSOCIATION MEDAL.

The committee appointed by the Association, at its meeting last year, to select a medal to be presented to each member, reported that it had selected a die with the vignette of Dr. N. S. Davis, the founder of the Association, on the obverse side, and with the name and date of said Society upon the reverse; and that it had arranged for the manufacture of the medal, in bronze, at the mint in Philadelphia, at a cost of $1.12 each, the twelve cents being for postage. The report was received, and the committee instructed to order 200 of the medals.

A resolution of sympathy for Dr. John B. Jackson, of Lexington, who was ill at his hotel, was passed, when the Association adjourned until 9.30 on Thursday morning.

Thursday, May 6—Third Day.

The Association was called to order by the President, Dr. W. K. Bowling. In accordance with the request previously made by Dr. Seguin the following gentlemen were appointed delegates to the Medical Convention at Brussels: Drs. J. A. Adrian, J. C. Hutchinson, J. C. Huff, E. C. Harwood, H. D. Hulton, and H. R. Warner.

A NEW PRIZE.

Dr. Seelye, of Alabama, offered a prize of one hundred dollars for the best essay on Bright's disease. Report accepted and referred.

THE CANADA MEDICAL ASSOCIATION.

Dr. Wood offered the following:

Whereas, the Canada Medical Association has adopted and forwarded to this Association the above resolution, be it

Resolved, that a committee of thirteen be appointed by this Association, whose duty it shall be to confer with a like committee of the Canada Medical Association, at such time and place as agreed upon by the joint committee of the Association.

The following gentlemen were appointed the committee:

Dr. S. D. Gross, Pennsylvania; Dr. John T. Hodgen, Missouri; Dr. Austin Flint, New York; Dr. Willoughby Walling, Kentucky; Dr. T. C. Lane, California; Dr. Wirt Johnson, Mississippi; Dr. Wm. Brodie, Michigan; Dr. J. M. Toner, Washington; Dr. T. D. Cunningham, Virginia; Dr. E. Andrews, Illinois; Dr. Wm. A. Atkinson, Pennsylvania; Dr. H. I. Bowditch, Massachusetts; Dr. Roberts Bartholow, Ohio.

Dr. Flint offered a resolution of sympathy for Dr. Lewis Rogers, of Louisville, prefacing it with appropriate and eulogistic remarks.

The following gentlemen were made members by invitation:

Drs. C. J. Walton, Kentucky; E. A. Wagner, Kentucky; Tucker, Kentucky; C. J. Renfro, Kentucky; O'Neal, Kentucky; Sweeney, Kentucky; N. J. Leak, Kentucky; K. D. Hawley, Indiana; W. C. Hall, Indiana; Fred. Pointer, Indiana; W. W. Hall, Mississippi; F. Pointer, Tennessee.

A memorial of Dr. E. M. Curtis was received from the Sacramento Medical Society, and was placed on file.

The treasurer's report showed a cash balance of $30,022.41.

THE M'DOWELL MEMORIAL FUND.

Dr. J. Marion Sims, of New York, as Chairman of the Special Committee appointed to devise plans for the establishment of the McDowell Memorial Fund, offered the following:

Whereas, it is universally acknowledged that the late Ephraim McDowell, of Kentucky, was the originator of the operation of ovariotomy; and,

Whereas, we believe that proper measures should be instituted to commemorate this great achievement and do appropriate honor to its author; therefore,

Resolved, That this Association recommend to each of its members and to the profession generally to contribute annually such sums as they may think proper, until the amount of $10,000 shall be accumulated, which shall be known as the McDowell Memorial Fund, the interest of which shall be devoted to the payment of prizes for the best essays relating to the diseases and surgery of the ovaries.

Resolved, That this Fund shall be invested by trustees, to be appointed by the Association, and subject to such regulations as it may desire.

Resolved, That the Association shall elect a board of three trustees, whose duty it shall be to carry out the object of these resolutions and whose term of office shall continue five years.

Resolved, That this Association will leave to the State of Kentucky the grateful privilege of providing a local memorial to the memory of Dr. McDowell. Respectfully submitted, J. Marion Sims, New York; Washington L. Atlee, Pennsylvania; W. T. Byford, Illinois; J. M. Keller, Kentucky.

Dr. Gross made some remarks concerning the justice of the claims of Dr. McDowell to the origination of the operation in question, after which he subscribed one hundred dollars to the Fund.

CENTENNIAL CONFERENCE.

Dr. Gross, as chairman of the Centennial Medical Commission of Philadelphia, announced that it was designed to hold an International Medical Conference in Philadelphia during the Centennial celebration. He then read from a circular the purport and plan of the movement. The Philadelphia County Medical Society, embracing nearly two hundred members, many of them of high professional distinction, animated by a just spirit of patriotism, and an earnest desire to unite with its fellow-citizens in celebrating the centennial birthday of American Independence, have projected an International Medical Conference. Arrangements have been perfected to hold the session during September, 1876. Addresses will be then read illustrating the advance in the profession during the past one hundred years. Invitations have been sent all over the world. The hospitalities of Philadelphia are proffered. Delegates will be expected from the Association and from State Societies.

THE REPORT OF THE JUDICIAL COUNCIL.

Dr. S. W. Benham, of the Judicial Council, made the following report:

The Judicial Council of the American Medical Association would respectfully report as follows:

In reference to the difficulties existing between the Allen County Medical Society, of Indiana, and the Fort Wayne Medical Association, of Indiana, we would respectfully refer the whole subject to the State Medical Society of Indiana for adjudication. In reference to the Arkansas State Medical Association, the following resolution was adopted, to wit: That the delegates of the said State Medical Association should be admitted to proper registration at this meeting of the American Medical Association; also that the protest of the local societies of Arkansas be referred to the State Society for adjudication.

The name of Dr. Sweeney, as a delegate from the State Medical Society of Kentucky, was rejected, for the simple reason that that State had already sent its full complement of delegates to this Association.

The following resolution in regard to delegates from the College of Physicians and Surgeons of Louisville was passed:

That the list of delegates appointed by the society known as the College of Physicians and Surgeons of Louisville, Ky., consisting of Drs. Turner Anderson, Wm. Bailey, D. W. Yandell, Lewis Rogers, and G. W. Holland, are the lawful and proper delegates from that society, and that the Committee of Arrangements should correct the registry of members for this meeting of the Association in conformity thereto.

Also, in reference to the Academy of Medicine of Louisville, that the action of the Committee of Arrangements, in declining to receive and register the names of all the delegates appointed by the society known as the Louisville Academy of Medicine, is approved as correct, simply because it is believed that the Association had already received from the State Medical Society of Kentucky, and the local societies in Louisville having a prior active existence, the full number of delegates to which the profession of Louisville are entitled under the present constitution of this Association.

ON TRANSFUSION.

Prof. E. M. Moore, of Rochester, N. Y., read a paper on the above subject, of which the following is an abstract:

Various methods of proceeding have been proffered by the disciples of transfusion. When first successfully performed it excited the highest hopes of friends, and attracted the attention of the great, who were interested spectators of the operation, and who predicted for it great therapeutic value. They indulged themselves in visions of life transmitted to the moribund patient from the superabundant supply of friends who would interpose a timely supply of healthy blood, and they, in their new-found zeal, almost imagined that death had been practically vanquished, and that youth by this means would be insured to the aged and decrepit. But the practice in this early day did not fulfil the expectations predicted of it, and, after a time, it ceased to be regarded as having any practical significance. In more recent times the subject had been revived, and the attention of the profession fixed upon it by a published article from a celebrated physician in Geneva, who described the operation as practised in St. Petersburg, which had not only been attended with marked success, but had enlisted the attention of royalty itself, together with that of the most distinguished physicians of the Russian empire. The operation was designed for the relief of those losing blood in battle, but soon became of more extended application, and old hopes soon became revived in modern science. Yet, as the speaker remarked, it must be confessed that our knowledge, even to the present time, concerning the therapeutic value of blood transfusion is decidedly limited.

This operation, with all the wonderful advantages claimed for it, was not a sudden discovery, but grew out of the experiments of Dr. Christopher Wren, in injecting medicinal substances into the veins; while this, in turn, grew out of Harvey's discovery of the circulation of the blood, in the early part of the seventeenth century. In 1665, two continental physicians prosecuted a series of experiments upon the lower animals, in respect to blood transfusion, but without any notable degree of success. Laner, another physician, took up this line of investigation in the same year. He connected the carotid artery of one dog with the jugular vein of another, and varied the operation at different times in respect to others; and, though not remarkably successful in these experiments, he thought, upon the whole, that he detected some results which were favorable to the theory.

Another experimenter passed the blood of a calf into the veins of a dog, but such being an infringement upon the laws of nature, the result proved a failure. The first operation of transfusion in the case of a human being occurred in Paris. A young man sixteen years old, who had been suffering two months from an obstinate fever, had introduced into his veins eight ounces of arterial blood from a lamb, and, notwithstanding the shock to his system, all unfavorable symptoms passed away, and he finally recovered. The case of a man aged forty-five years was cited, into whose veins were introduced ten ounces of the arterial blood of a lamb. He was not at all incommoded by the operation, and even went the next day to have the operation repeated. Another man, reduced by dysentery, was transfused with the blood of a calf, and revived in twenty-four hours, but when it was found necessary to repeat the process, such proved of no avail. Another case cited referred to that of an insane man, into whose veins were introduced, at one time, ten ounces of the arterial blood of a calf, and at another six ounces more. He seemed somewhat better, in consequence, and a third transfusion was made, in which a larger quantity of blood was injected, and finally, upon recovering his reason, was supposed cured, but in a few days thereafter gave up the ghost.

Such fatal experiences at length checked inquiry and enthusiasm in this direction, and as late as the year 1868 interest in transfusion had almost entirely disappeared.

In recounting the later experiments of transfusion, reference was made to the variety of procedure in such investigation, in which arterial blood was introduced into the veins, venous blood into the arteries, and each kind of fluid, with its fellow, as introduced from animals into the human system, and from one human being to another. Instances were also given in which defibrinated blood was injected into both arteries and veins. In the experiments thus enumerated, reference was also made to the direct admixture of the blood of one animal of different species or genus with that of another, as, for instance, the blood of birds with that of quadrupeds, quadrupeds with birds, that of cold-blooded animals with the warm-blooded, and *vice versa;* but only in those nearest of kin or allied in species were the results proved to be favorable, in which the vital functions were restored, and the new forces re-established.

The danger attending the original experiments was the accidental introduction of air into the veins, the result of which, in all cases, is immediate death. There was also another drawback to the success of this operation at that time, which was the coagulation of blood before it could be speedily introduced from the veins of the donor to those of the recipients. And accordingly the minds of those engaged in the prosecution of this matter were taxed to invent instruments and appliances by means of which these difficulties could be overcome. Improvements in this direction had gone on until at present the apparatus in use was found to answer all practical purposes, and all liability to the accidental ingress of air into the veins was avoided, while it insured such a speedy transfer of blood from the donor to the recipient as effectually prevented any tendency to thickening or coagulation thereof. Engravings of the several kinds of instruments used for this purpose were exhibited and explained.

To give some idea of the manner of using the instrument preferred by the speaker two boys were seated on the stage, close together, one representing the donor, from whom the blood was to be taken, and the other the recipient of the life-giving fluid. The latter, however, as the speaker observed, must always occupy the recumbent position, and the former that of the sitting. The arms of both were extended and made to approximate to each other, the operator standing behind them in order to demonstrate, and which position, he remarked, was the position the surgeon should assume in this operation. First, the skin over the cephalic vein of the recipient must be clipped, to lay bare that vessel, which was to be further isolated from adhering tissues in order to be gotten at successfully. That of the donor was to be held in ready juxtaposition for the operation. The instrument consisted of a small silver tube four or five inches long, with a small gutta-percha bag adjusted to an attachment at its centre. When one end of this instrument was introduced into the vein of the donor, the speedy filling of which was to be insured by a ligature above the bend of the arm, the bag would soon be filled with blood. The connection of this with the vein was then to be severed, and the contents of the bag introduced gently through the other end of the instrument, which, in the meantime, was to be inserted into the bared vein of the recipient.

The consideration of this subject seemed to be exhausted, so far as the present state of knowledge upon the matter is concerned, which yet affords a wide, interesting, and useful field for investigation.

UTERINE FIBROIDS,

by Dr. Byford, of Illinois, occupied the remainder of the session. It was also well received and referred for publication.

The Association then adjourned until 9.30 o'clock on Friday morning.

Friday, May 7—Fourth Day.

The Association was called to order at 9.30 P.M. President W. K. Bowling in the chair. Dr. Keller, of Ky., offered the following, which was adopted:

Resolved, That all motions involving the authorization of expenditure of funds, except the expenses of the committee on publication and salary of the secretary, shall be referred to the judicial council for recommendation before final action be taken upon them by the Association.

DELEGATES TO THE CANADIAN CONVENTION.

The following gentlemen were appointed delegates to the Canadian Medical Convention:

Dr. S. D. Gross, Pennsylvania; Dr. Turner Anderson, Kentucky; Dr. Willoughby Walling, Kentucky; Dr. Wm. B. Atkinson, Pennsylvania; Dr. Wm. Brodie, Michigan; Dr. E. T. Easley, Texas.

TRUSTEES OF THE MCDOWELL MEMORIAL.

The following gentlemen were chosen members of the McDowell memorial.

Dr. W. L. Atlee, Philadelphia; Dr. W. H. Byford, Chicago; Dr. J. D. Jackson, Danville, Ky.; Dr. J. M. Keller, Louisville; Dr. J. Marion Sims, the president, ex-officio chairman.

OFFICERS FOR THE ENSUING YEAR.

Dr. James R. Wood, chairman of the Nominating Committee, made the following report:

President—Dr. J. Marion Sims, of New York.

Vice Presidents—First, Dr. John D. Jackson, of Kentucky; second, Dr. Samuel Lilly, of New Jersey; third, Dr. N. Pinkney, of United States Army; fourth, Dr. S. D. Seeley, of Alabama.

Treasurer—Dr. Casper Wister, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Eliot, of District of Columbia.

Assistant Secretary—Dr. Richard J. Dunglison, of Pennsylvania.

Committee on Arrangements—Drs. William Pepper, Chairman; Frank Maury, Albert Fricke, A. Hewson, S. W. Gross, William Goodsell and —— Drysdale.

Committee on Publication—Dr. F. G. Smith,—— Drysdale, Albert Fricke, and Wm. B. Atkinson, all of Philadelphia.

OFFICERS OF SECTIONS.

Practice of Medicine, Materia Medica and Physiology—Dr. F. G. Smith, Pennsylvania, chairman; Dr. B. A. Vaughn, of Mississippi, secretary.

Obstetrics and Diseases of Women—Dr. Samuel C. Busey, of District of Columbia, chairman; Dr. R. Battey, of Georgia, secretary.

Surgery and Anatomy—Dr. Alonzo Garcelon, of Maine, chairman; Dr. E. T. Easley, of Texas, secretary.

Medical Jurisprudence, Chemistry, and Physiology—Dr. E. L. Howard, of Maryland, chairman; Dr. E. L. Hurlburt, of Illinois, secretary.

State Medicine and Public Hygiene: Dr. R. C. Kedzie, of Michigan, chairman; Dr. Ezra M. Hunt, of New Jersey, secretary.

The following were appointed representatives in this section from their respective States: J. B. Gaston, Alabama; D. A. Linthicum, Arkansas; T. M. Logan, Colorado; B. H. Cattlin, Connecticut; L. B. Bush, Delaware; F. Howard, District Columbia; W. A. Love, Georgia; H. A. Johnson, Illinois; Geo. Sulton, Indiana; A. J. Fields, Iowa; D. G. Mottram, Kansas; Turner Anderson, Kentucky; S. M. Bemiss, Louisiana; S. H. Weeks, Maine; James A. Stuart, Maryland; H. J. Bowditch, Massachusetts; A. B. Stuart, Minnesota; —— Armistead, Mississippi; Frank G. Porter, Missouri; J. H. Peabody, Nebraska; J. W. Parsons, New Hampshire; E. M. Hunt, New Jersey; A. N. Bell, New York; T. J. Quinn, Ohio; H. Bettinger, Oregon; Wm. F. Knox, Pennsylvania; E. M. Snow, Rhode Island; R. A. Kinlock, South Carolina; J. H. Vandiman, Tennessee; J. M. Fort, Texas; J. L. Caball, Virginia; A. T. Woodward, Vermont; H. P. Strong, Wisconsin; John Frissell, West Virginia; Wm. A. B. Norcom, North Carolina; John S. Billings, U. S. Army; Joseph Wilson, U. S. Navy.

The following is the Committee on Necrology: S. O. Chinn, Maryland, Chairman; B. R. Jones, Alabama; A. H. Scott, Arkansas; Henry Gibbon, Jr., California; G. W. Russell, Connecticut; L. P. Bush, Delaware; W. W. Johnson, District of Columbia; A. J. Kirksey, Georgia; W. M. Chambers, Illinois; Thad. M. Stevens, Indiana; J. W. Baker, Iowa; D. W. Stormant, Kansas; L. P. Yandell, Sr., Kentucky; Alonzo Garcton, Maine; A. Sayer, Michigan; A. W. Stinchfield, Minnesota; Wm. M. Compton, Mississippi; A. J. Steele, Missouri; J. H. Peabody, Nebraska; J. H. Wheeler, New Hampshire; John Blain, New Jersey; W. H. Bailey, New York; George Mitchell, Ohio; W. C. Warriner, Oregon; Horatio C. Wood, Pennsylvania; C. W. Parsons, Rhode Island; A. N. Talley, South Carolina; John H. Callender, Tennessee; S. D. Thurston, Texas; Levin S. Jaynes, Virginia; R. W. Hazlett, West Virginia; N. M. Dobson, Wisconsin; J. J. Woodward, U. S. Army; S. F. Wilson, U. S. Navy; O. J. O'Heagan, North Carolina; —— Bronson, Massachusetts.

JUDICIAL COUNCIL.

The terms of a portion of the Judicial Council expiring at this meeting, the following were appointed to take their places:

Dr. Louis S. Jaynes, of Virginia; Dr. R. N. Todd, of Indiana; Dr. Robert Battey, of Georgia; Dr. James E. Morgan, District of Columbia; Dr. Thomas B. Flaylor, of New Jersey; Dr. Silas N. Bentram, of Pennsylvania; Dr. A. Dunlap, of Ohio.

PRIZE ESSAYS.

The following is the Committee on the Determination of Prize Essays:

Dr. Samuel D. Gross, Pennsylvania; Dr. F. G. Smith, Pennsylvania; Dr. Alford Stiltz, Pennsylvania; Dr. E. Wallace, Pennsylvania; Dr. H. C. Wood, Pennsylvania.

CLIMATIC INFLUENCES.

Dr. Franklin Staples, of Minnesota, was appointed to report on the influence of the Minnesota climate on pulmonary diseases; Dr. Charles Dennison, of Colorado, to report on the same in Colorado; and Dr. E. T. Sabal, of Florida, to report on the same in Florida.

A NATIONAL COUNCIL OF HEALTH.

Dr. Bowditch, of Boston, made some extended remarks upon the practicability of establishing a National Council of Health. After stating the results of his inquiries from the Secretaries of Health Associations in the different States, and giving their generally favorable view of the project, he remarked that State medical boards should be composed of both professional and lay members. In that of his own (Massachusetts), the board consisted of three physicians and four laymen, the latter being citizens eminent for their intelligence and public spirit, one of whom was a civil engineer, who stood at the head of his profession; another was a noted historical writer, while a third was a wholesale leather-dealer, who was valuable by his ability to win over the belligerent butchers, who generally fought against sanitary supervisions. Concerning the practical advantages to be derived from the deliberations and the authority of a National Council of Health, the speaker proceeded to specify some of these in the way of general utility to the whole country. In the broad zone of territory extending from Maine to Florida, and from ocean to ocean, there are fertile prairies, vast morasses, lagoons, swamps, etc., and all those portions of our territory must be brought under scientific manipulation in order to fit them for healthy abode. In the past, as at the present time, there are hecatombs of men sacrificed from ignorance of hygenic laws, and to enable the Government to bring all this under the supervision of a sanitary board is not the work of a moment. He thought that there should be a department of hygiene created by the Government, which should be represented in the Presidential Cabinet. This would embrace the oversight of hospitals, insane asylums, forts, camps, barracks, medical storehouses, etc., to say nothing of the general supervision of that department over its ramified interests throughout the land, in which would be embraced the study and observation of health, diseases, epidemics, climatology, meteorology, etc. In the event of the establishment of this great enterprise, every State should have a counsellor, and all be present at any meeting; some at least would be able men. Each counsellor should hold office for five years, and be re-elected if such should be thought desirable. In addition, the speaker suggested that this association should have the right to select, every five years, four men as counsellors at large for the nation, to be chosen from four divisions of the country, each man to serve five years. And finally, the National Government should be represented in the council by the health secretary, surgeon-general, and signal officer, that they may be able to answer questions pertaining to their several fields of labor. This would take from this association some right of nominating in the national council, but the association would still stand higher in having four representatives. The fact of the constant change of the place of meeting must compel the association to be more or less sectional in its action, however much it may claim to be a national body. This health association, composed of one from the medical organization of each State, would be of national significance, and as a national body, transacting public business, its members should have reasonable compensation and mileage granted them. But the great object now was to begin to educate the people up to a knowledge of their wants in this direction, and to this end the following resolutions appended to the paper read by the speaker:

Resolved, That each year, until otherwise ordered, the president-elect and the permanent secretary be directed to appeal, in the name of this association, to the authorities of each State where no State Board of Health exists, urging them to establish such boards.

Resolved, That the permanent secretary is hereby directed annually to report the names of the States where boards of health exist, and also of those which decline to establish them; said report to form a part of the annual proceedings of the association.

PRIZE ESSAYS.

The Committee on Prize Essays was not prepared to make a report.

OZONE AND THE SIGNAL SERVICE.

The chief of the United States Signal Service was requested, if it is within his power, to note in his daily weather reports the quantity of ozone in the atmosphere in different sections of the country.

SALARY OF ARMY PHYSICIANS.

On motion of Dr. Westmorland, the Association unanimously adopted a resolution recommending to Congress that the salaries of the physicians of the army be increased.

PROF. JAMES M'NAUGHTON, OF ALBANY, N. Y.

Dr. N. S. Davis moved the following:

Resolved, That in the death of the late Dr. James M'Naughton, of Albany, N. Y., we recognize the loss of one of the earliest, oldest, and most distinguished members of this Association; one who for more than half a century had been a noble example of the upright citizen, the untiring physician, the enthusiastic teacher, and the true Christian gentleman.

Resolved, That a copy of the foregoing resolution be communicated to the family of the deceased.

Dr. Gross, having in a few remarks testified to the virtues of the deceased, the resolutions were passed by a rising vote.

The time for adjournment having arrived, several complimentary speeches were made, and the usual resolutions of thanks passed.

The Association adjourned, to meet in Philadelphia the first Tuesday in June, 1876.

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ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 2d to May 8th, 1875.

Head J. F., Surgeon.—Announced as Medical Director of the Department. G. O. 3, Department of the South, April 30, 1875.

Weisel, D., Assistant Surgeon.—Granted leave of absence for one month. S. O. 56, Department of the South, May 1, 1875.

Semig, B. G., Assistant Surgeon.—Assigned to duty at Fort Yuma, California. S. O. 25, Department of Arizona, April 12, 1875.

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The Fifty-fourth Annual Report of the New York Eye and Ear Infirmary is a pamphlet of sixty-four pages. 7,464 cases of diseases of the eye, 2,439 of diseases of the ear, and 583 of diseases of the throat have been treated during 1874; a total of 10,486, or 185,963 which have been treated since the founding of the infirmary in 1820. 1,131 operations were performed during the year. The report contains a list of fifty cases of disease of the eye, ear, face, and throat which had been treated by electricity, of which twenty-two received decided benefit, thirteen no benefit, while in fifteen cases the remedy did not have a fair trial. Dr. Derby's report of the results in thirty-eight operations for cataract performed at the infirmary, is included in the pamphlet, and analytical reports are made of the different departments. It is mentioned that notwithstanding the widespread prevalence of epidemic diphtheria in the city, especially among the poorer population, only a single case of pharyngeal diphtheria and two of diphtheritic paralysis of the velum palati are to be found among the cases treated in the throat department.

Medical Items and News.

University Medical College, New York.—Prof. Alfred C. Post has resigned the chair of surgery in the medical department of the University of New York, and has been elected Emeritus Professor of Clinical Surgery. Prof. John T. Darby, formerly professor of anatomy and surgery in the medical department of the University of South Carolina, has been elected to fill the vacancy.

N. Y. Eye Infirmary.—A suit for damages to the amount of $100.000 has been commenced against the New York Eye Infirmary and R. H. Derby, one of the surgeons, for alleged improper treatment of a patient's eyes, whereby it is claimed blindness resulted. It is fair to presume that the institution and the surgeons are entirely safe.

A Mistake in Diagnosis.—Two prominent physicians of Kingston, Ulster Co., N. Y., have been indicted by the Grand Jury of that city for mistaking a case of small-pox for chicken-pox, thus causing the spread of the former disease.

Susan Dimock, M.D., the talented female physician of Boston, was one of the victims of the Schiller wreck. For a long time she was the resident physician of the New England Hospital for Women and Children.

Joseph Mather Smith, M.D.—It is the intention of Dr. Gouverneur M. Smith to present a fine portrait of his father to the Academy of Medicine, on the occasion of the inauguration of the new building, on the 20th. Dr. J. M. Smith was one of the founders of the Academy and was its President in 1854.

Prof. S. D. Gross, of Philadelphia, on the eve of his departure from Louisville, after attending the meeting of the American Medical Association, was the recipient of a handsome team of Kentucky thoroughbreds, the impromptu gift of his medical friends and citizens of Louisville. The idea was suggested by a visit to the famous stock-farm of Col. McFerran, and a subscription for the purpose was quietly started on the spot. Dr. Gross for many years was professor of surgery in the Louisville University, and during that time made host of friends among his medical brethren and the citizens. The team is valued at $800.

Death during Inhalation of Ether.—*The Lancet* of April 17 mentions that a lad of sixteen, when about to undergo a slight surgical operation in the Manchester workhouse, expired soon after the inhalation of ether had been commenced. Twice before had chloroform been used, but it had worked so badly that on this occasion ether was substituted. The verdict rendered at the inquest was, "Died of syncope."

College of Physicians and Surgeons.—At a quarterly meeting of Trustees of College of Physicians and Surgeons, on 11th inst., Alonzo Clark, M.D., was unanimously elected President of the College. Thos. F. Cock, M.D., was elected Trustee in place of Edward Delafield, M.D., deceased. Francis Delafield, M.D., was appointed adjunct Professor of Pathology and Practical Medicine.

Daniel Hanbury, F.R.S., long and well known as a writer and investigator on pharmacological subjects, and associate author of the "Pharmacographia," died at his residence in London, on the twenty-fourth of March, in the fiftieth year of his age.

The Population of Germany is about the same as that of the United States—forty millions. Last year Germany graduated six hundred and sixty physicians, and the United States three thousand, and yet some think it strange that it takes a young physician so long to become established.

Dr. Wernich, *privat-docent* in Berlin, has been appointed by the Japanese Government teacher of Clinical Medicine in the Medico-Chirurgical School at Jeddo.

The North-Western Ohio Medical Association.—The meeting of this Association has been postponed to May 19 and 20, owing to the meeting of the American Medical Association on the 4th, and will take place, as appointed, at St. Mary's.

Medical Society of New Jersey.—The next annual meeting of the Medical Society of New Jersey will be held in Congress Hall, at Atlantic City, Tuesday and Wednesday, May 25th and 26th, 1875, commencing at at 7.30 p.m. on Tuesday. Delegates are requested to present their credentials at that time. At 8 o'clock precisely, the Annual Address by the President, Dr. Larison, will be delivered. After the address, the President will announce the committees, etc.

On Wednesday, after the transaction of the usual routine business, essays will be read by Dr. H. R. Baldwin, of New Brunswick; Dr. J. W. Ward, of Trenton, "The Causes of Insanity;" R. M. Bateman, of Cedarville, "Legislative Protection," which will be followed by voluntary communications and reports of interesting cases.

After the adjournment on Tuesday evening, there will be a banquet in Congress Hall, given to the members of the Camden Medical Society. A special train of cars have been secured to convey the delegates and members [delegates from corresponding societies are included] from Camden to Atlantic City with free passes. The train will leave Camden at 3.40 o'clock, p.m.; Vine Street Ferry, Philadelphia, at 3.30. This train will run through in two hours. Arrangements have been effected with the Penn. R. R. for orders for commutation tickets. Members desiring orders for commutation should apply for them to the Secretary (Dr. Pierson) before the 22d inst. Congress Hall will open two weeks earlier than usual for the special accommodation of the Society. The hotel will accommodate five hundred guests. J. V. Schenck, T. F. Cullen, I. W. Snowden, H. G. Taylor, J. R. Stevenson, Committee of Arrangements.

Erratum.—In the first lecture of Dr. Arnold, No. 233. 290, 14th line from bottom, for "one-tenth" read "three-tenths."

Weekly Bulletin of Meetings of Medical Societies.

Monday, May 17.—Obstet. Sec. of the Acad. of Med., at house of Dr. Isaac E. Taylor; Medico-Chirurgical Society; N. Y. Society of Electrology and Neurology; Pathological Society of Brooklyn.

Tuesday, May 18.—N. Y. Obstetrical Soc.; N. Y. Dermatological Society; Med. Soc. of the County of Kings; Newark Medical Association.

Thursday, May 20.—N. Y. Academy of Medicine (first meeting in the rooms at 12 West 31st Street); Med. Assoc. of the Eastern Dist. of Brooklyn.

Friday, May 21.—Medical Library and Journal Association: Anchylosis of the Temporo-Maxillary Articulation of long Standing; Displacement, Fracture, Atrophy of the Muscles, Treatment by Dr. D. H. Goodwillie.

Original Communications.

CONIUM: AND ITS USE IN DISEASES OF THE EYE.

By EDWARD CURTIS, A.M., M.D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK; SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY.

[Read before the New York County Medical Society, April 26, 1875.]

Part I.

Perhaps none of the old-time drugs has such a curious history as conium. Known from antiquity as a mighty poison, it was yet but little used as an internal medicine, until about a hundred years ago. Then, through the treatise of Stoerck, it mounted to the pinnacle of fashion, only to fall, after many years, into almost complete disuse. From this comparative oblivion it has lately been rescued, and is now again on trial for its life, with strong foreshadowings that the jury will disagree.

The key to this strange history lies in two facts, which cannot be too widely made known. These are, first, that the active principle of the hemlock is so volatile that it may easily be entirely driven off in the very making of medicinal preparations: and, secondly, that the leaf of the plant, which has been and still is a good deal used by the pharmacist, contains at best but a very small percentage of the alkaloid, and may lose even this in the mere drying. Hence the curious circumstance has happened, that in this case the skill of modern pharmacy during long years only resulted in supplanting the crude, but poisonous juice of antiquity, by preparations which, from their innocence, might as well be made from cabbage-heads as from the deadly spotted hemlock. And even to-day the shelves of the druggist teem with preparations bearing the name of conium, which are nearly, and often even wholly inert. Some are so because the Pharmacopœia persists in authorizing processes that *can* give no other result: but also, it is well to know, even the one good preparation—the new fluid extract of the green fruit—does not always escape emasculation at the hands of its maker. Thus I have given at a dose sixty, and even one hundred minims of samples of this extract, made by responsible large manufacturers and wholesale druggists, with no more effect than if the potion had been so much water. And that, too, where the same patient, the same day, was stretched out in twenty minutes, perfectly limp and unable to stand, by sixty minims of a more carefully made preparation.

With these facts before us, it is easy to understand both the past and present uncertainty concerning the true status of hemlock as a medicine; and it is plain that whether in experimenting for ourselves, or in judging the results of others, it is an indispensable prerequisite that the individual preparation used in each case shall have been shown by physiological testing to possess full activity. All evidence pro or con concerning hemlock, where this precaution has been omitted, is worthless.

Our real knowledge of the effects and uses of the drug in medicinal doses is of comparatively recent date. To the laboratories of the Germans we are principally indebted for a thorough physiological analysis of the action of hemlock, and mainly to Dr. John Harley, of England, for a bold testing of the effects on man, and for a discriminating use of the remedy in disease. Conium has thus been shown to belong to the small but exceedingly interesting group of poisons containing the Calabar bean, yellow jasmine, and curare, of which the production of simple motor palsy is the characteristic physiological effect. The seat of this paralyzing influence is the same with conium as with curare; namely, in moderate grades the terminal nerve-endings only, while in full poisoning the motor trunks are also involved, and possibly, in fatal dosing, the spinal cord as well. In medicinal doses, then, hemlock can be considered to cause the paresis simply by interfering in some unknown way with the conducting power of the motor nerve-endings in the muscles. Conium, furthermore, like many other paralyzers, shows a special predilection for certain individual nerves, affecting them earlier and more severely than others. This curious favoritism, although not so strongly marked with hemlock as with other agents, is yet quite distinctly appreciable, and the specially obnoxious nerves in this case are the cranial pairs supplying the muscular apparatus of the eyeball. These nerves always seem to be affected by hemlock slightly in advance of all others, and with somewhat greater intensity.

Upon the sensory nerves it is possible that hemlock may have effect, for its local application is claimed to have relieved the pains of cancer, and a cut surface or exposed nerve brought into contact with the alkaloid is said to lose sensibility. But when the drug is given internally, even in full medicinal dose, there is practically no effect on sensation—certainly nothing at all comparable to the palsy of motion. Thus a patient of mine, while profoundly affected in his motor function, yet showed no failure in the sharpness of the sense of touch when carefully tested with the æsthesiometer. And animals fully poisoned by hemlock, so long as they retain any motor power by which to express it, always give signs of the perception of pain.

Upon the central nervous system conium has little if any primary effect. The intellect is absolutely unimpaired, and such drowsiness as sometimes follows a full dose, is no more than would naturally result from the recumbent posture and muscular rest which the semi-paralysis enforces, especially when, as often happens in therapeutics, the patient has been previously worn out by want of sleep through some painful spasmodic affection which the hemlock temporarily relieves.

A very grave question is, whether conium includes the heart among its victims for paralysis. The weight of evidence has hitherto been that, like curare, it does not; and this supposed immunity of the heart is considered to give conium a great medicinal preference over Calabar bean, which notoriously affects the same organ most profoundly. The grounds for the belief are, in the first place, the fact that patients may be stretched out by hemlock utterly limp and powerless, while yet the pulse is firm and regular and there is no faintness; and in the second place, that in animals killed by the poison the heart will be found to beat many minutes after death. But yet, in the recent case of fatal poisoning in man, paralysis of the heart has, I believe, been inferred by some to have been the mode of death. I am not in position to argue this question, as all my information in regard to the case is the newspaper reports. But I may say that the alleged suddenness of death in this instance does not seem to me to necessarily point to the heart as the seat of the death-blow. For in animals fatally poisoned, as I have myself carefully verified, they will lie awhile flaccid and motionless, breathing slowly but regularly, when all of a sudden they will stop breathing altogether, and with a brief trembling of the limbs will immediately die. But in such case, on quickly opening the chest, there is the heart quietly pumping away, and it will continue to do so, even in mammals, for fifteen minutes or more.

As regards minor disturbances, conium is, for a powerful drug, unusually devoid of effect. There are generally giddiness and nausea, but these symptoms, as I shall shortly explain, are in great part mere consequences of the palsy, and can to a considerable extent be avoided. The bowels are scarcely affected, and there are no disagreeable after-effects whatever.

Hemlock, for a deadly poison, is then wonderfully simple in its influence on the economy. Practically it operates as a pure motor paralyzer, and its modern use in medicine is simply to procure certain degrees of paresis for therapeutic ends. The clinical symptoms attending its use are therefore important to know, but as they have been elsewhere abundantly and graphically described of late, it is unnecessary to take up time with their narration. Suffice it to say that the volatile alkaloid of the drug is very quickly absorbed by an *empty* stomach, and eliminated with equal speed. Hence, one striking feature of the hemlock action is the quick onset of the symptoms, their rapid increase to full intensity, their short duration at their height, and, after they once begin to abate, their speedy and complete disappearance. Thus in my own person, after taking thirty minims of Squibb's fluid extract, the hemlock influence began to declare itself in ten minutes: in fifteen more it had attained its height: twenty more and the effects were distinctly subsiding, and in another quarter of an hour had wholly disappeared, all but a little flatulent distention and squeamishness of the stomach. And in another hour even these feelings had vanished. Of course with larger doses the effect will last longer, but even after taking a fluid drachm of Squibb's extract, the highest single dose I have personally given, three or at most four hours finds the patient wholly "in statu quo ante" *conium*.

As regards intensity of effect, it is necessary to bear in mind the fact pointed out by Harley, that the degree of palsy is related not so much to the age, weight, or muscular development of the subject as to his habit of motor activity. Thus an active, restless child will bear more hemlock in proportion, and perhaps even absolutely, than an indolent or languid adult. And even the same individual will be affected to a different degree by the same dose, according to whether he take it in the morning when feeling brisk and buoyant, or in the evening when fatigued by a hard day's work. Fulness or emptiness of the stomach also influences the effect of a dose. For the poison is so quickly gotten rid of, after entrance into the blood, that if taken on a full stomach, when *absorption* is perforce comparatively slow, it may get out of the system almost as fast as it gets in. Hence the full dose may never be present in the blood at any one time, and of course the effects will be correspondingly feeble. The bearing of these facts on the therapeutic use of full doses of conium is so obvious as not to need remark.

In kind, the symptoms are mainly those of progressive paralysis, beginning in the ocular muscles. But there is a corollary, so to speak, of this condition of partial palsy, which is so interesting as a matter of physiology, that I must ask pardon for spending a few minutes in its discussion. I refer to the giddiness and nausea which so generally accompany the operation of hemlock. Possibly, after a large dose, some of this disturbance may be primary, but much of it is in all cases purely a consequence of the paresis, and is, I believe, identical in its etiology, as it plainly is in character, with ordinary sea-sickness. And I think an analysis of the determining causes of the sickness in the two seemingly utterly dissimilar circumstances of hemlock-poisoning and "life on the ocean wave" will be found to throw much light on the etiology of the disorder.

Now I am personally exceedingly susceptible to sea-sickness, but when on the water I have always found that so long as I lie flat and utterly relaxed.—abstain from any movement involving the balance of the body. and either keep the eyes shut or stare fixedly upwards so as not to see the ocean,—then I am wholly free from any disagreeable feeling whatever. But let me violate these conditions in the least, or let the roll of the vessel be so great that a muscular effort is needed to hold the body in place even when flat on the back, and at once I begin to suffer. Here then the determining cause of sickness is either the attempt to balance the body, in whole or part, on a swaying foothold, or the turning the eyes on a field of view where nothing is fixed in position.

Now let us turn to conium. One afternoon, while busily occupied in writing, I took half a drachm of Squibb's fluid extract, and continued my task. No immediate effect following I soon forgot all about the dose. But after about ten minutes, having occasion to recharge my pen with ink, I of course raised my eyes quickly from the manuscript upon which they had been steadily fixed, towards the inkstand, some little distance away. But in so doing I instantly experienced a slight difficulty in accurately sighting that object—the eyes did not strike exactly where they were aimed —and simultaneously a faint but distinct thrill of the peculiar swimming feeling that I know so well as the beginning of sea-sickness, swept through the brain. Plainly the subtle influence of the poison had been creeping over me while absorbed in writing, but could not declare itself by symptom until a quick and decided movement of the already paretic ocular muscles was attempted. Then, however, it was instantly made manifest by the trouble in promptly sighting a given object, and, what is the point, then at once but not till then, was the least giddiness experienced. As the palsy of the ocular muscles advanced, soon the slightest movement of the eyes produced a curious and very disagreeable apparent flickering of the field of view. and was always accompanied by a sudden rush of giddiness. But so long as the eyes were kept motionless, then, as long ago pointed out by Harley, there was no giddiness. For experiment, however, I *did* try the eyes in various ways, seeking to find, among other things, how the focalizing power on near objects was affected: and the consequence was that I quickly became not only very giddy but also decidedly nauseated. —in fact veritably sea-sick, the sensations being the same as those felt at sea. Fearing I should vomit, I got up to cross the room to the wash-stand. But at once the floor seemed to rock and waver and I staggered against a table. Not being conscious, however, of any real weakness of the legs, it immediately struck me that the uncertainty of step was purely because the eyes were playing false as guides for the feet. If so, I argued, walking ought to be steadier with the eyes shut than open. Accordingly, after getting the proper bearings, I shut the eyes, and sure enough found at once that I could now walk straight and steady, and, what was more, without any feeling of giddiness. Securing a basin I repeated the little experiment on the return trip to the desk, and with precisely the same result—giddiness, transient nausea and staggering gait on trying to walk with eyes open,—freedom from all trouble with them shut. This observation I have further verified with patients taking the drug medicinally. Shortly after this, the paresis, which had hitherto been mainly confined to the ocular muscles, became general, and then I found that, even with eyes shut, any movement involving the balance of the body was attended with a singular uncertainty and falling short of the desired effect, and this was again invariably accompanied by a fresh rush of sea-sick feeling. I accordingly now settled back in my arm-chair, shut my eyes, and for some ten minutes kept absolutely still, with every muscle completely relaxed. The sea-sickness then speedily disappeared, and I became wholly unconscious of any influence of the poison whatsoever. Indeed I had to open my eyes at last and experimentally look about, in order to know whether the enemy was still with me at all or not.

Now comparing the sickness thus occurring in my own person when at sea, and when under the influence of hemlock, we notice that in both cases the exciting cause is either the use of the eyes or the attempt—whether voluntary or forced—to balance the body. And the same very simple and obvious explanation seems to me to apply to all these varied circumstances.

First as regards the part played by the eyesight. *Seeing*, as an intellectual process, is by no means a simple one. Its elements are a perception of the retinal image by the part of the brain endowed with that faculty, and a simultaneous appreciation of the direction of the eyes and of any movement of the same, obtained through the muscular sense and the conscious exercise of motor volition. From these elements then the intellect calculates the actual relations in space of the objects viewed. In other words, *seeing*, in the broad sense of the term, is an intellectual translation of the associated sensory and motor impressions experienced in the use of the eyes. Yet this faculty is not intuitive; it is wholly an acquired art, and it is simply long practice that makes its exercise so easy and certain as to seem automatic. We have, then, in what we call seeing, really a process of reasoning upon the simultaneous presentment of certain impressions through the visual and muscular senses, and conscious exercise of muscular movement. But for this process to develop into an unerring habit, it is obvious that there must be a fixed order of association between the several impressions thus correlated as the data to be reasoned upon. And this again can only occur where there is, as a matter of fact, a fixed relation between position and motion of the eyes themselves and position and motion of the visual image on the plane of the retina. And now how is it, in truth, in this regard? Why exactly such a state of things exists. In the ordinary experience of life there *is* a definite relation and a very simple one between the motor status respectively of the eye and the visual image. Fixity of the one means fixity of the other, and change of direction of the one is attended by an exactly proportionate shifting of position of the other. This relation then of course determines a definite habit of sensori-motor association in using the eyes, and the one being invariable the other becomes so likewise. The reasoning faculty, then, learning this invariability by experience, accepts it as a final fact, and educating itself wholly on that basis, develops by practice the art of instant and unerring translation of these various correlated perceptions into ideas of actual distance, direction and motion. But suppose now this customary association, just described, be from any cause suddenly broken up, and a different one established. Of course the old rules for interpretation become worse than useless, and the seeing faculty, unable at once to calculate correctly according to the changed conditions, becomes confused and led into error by instinctively falling back into its old habits. And certainly it is not unnatural to imagine that such a state of mental confusion might provoke in sensitive organizations profound functional nervous disorder.

Now then what happens when a landsman looks down on the water from a rolling deck—notoriously the rashest thing he can do? Why exactly such a break-up in the customary sensori-motor association as just supposed, now occurs, for the simple reason that the physical relation between status of eyes and visual image, by which such association is brought about, is now entirely changed. *Now* though the eyes be fixed in a steady stare, the visual image is *not*, but, in the first place, as a whole it sways up and down and rocks to and fro over the retina, from the motion imparted to eyes, head and body by the rolling of the ship; and in the second place in its several parts it presents nothing but a field of confusedly moving objects. Hence the landsman's brain, accustomed to judge of the lay of the perpendicular and horizontal by the experience of a stable framework to the retinal picture when the eyes are fixed, must now suddenly give up that association of perceptions, and adopt a new one of an oscillating and—if I may be allowed to coin a word—an *inter-wriggling* visual image under the same conditions. Some brains can readily do this, and the co-ordinating centre arranges about the "sea-legs" at once. Others cannot, and with such the least attempt to use the eyesight under the changed conditions produces cerebral confusion, with the symptoms of a swimming in the head, sinking at the stomach, and if circumstances do not change, nausea and vomiting. In other words sea-sickness is the penalty of using the eyes when the customary sensori-motor association involved no longer obtains.

As regards the sickness produced by any effort to balance the body on a rolling deck, the rationale is exactly the same. In keeping our balance, generally, we have muscular action through the co-ordinating centre, guided by information gotten through sight and the muscular sense. Here again, then, we have sensori-motor association, and again a fixed habit of the same springs naturally from the experience of a fixed relation between movement or quiescence of the body on the one hand, and the accompanying state of balance on the other. But on shipboard this relation, again, no longer obtains, for instead of the stable foothold to which the body is accustomed, an irregularly swaying and heaving one is now presented. Hence follows confusion on attempting to make any movement involving bodily balance, and this is again attended by giddiness and nausea.

(To be continued.)

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The Massachusetts General Hospital publishes its report for 1874, and announces that sixteen hundred and thirty-nine patients were treated during the year, at an average cost of two dollars and eighteen cents per week for each patient. The average number of patients for the year has been one hundred and forty-nine. Of the total number seven hundred and forty-nine were medical, and the balance surgical cases. The proportion of deaths to the whole number of results was 7.69 per cent. The average time in hospital of paying patients was 2.73 weeks; and that of free patients 5.64 weeks. A new one-story pavilion, called the "Bigelow Pavilion," had at the time of the report nearly reached completion. It was calculated for the accommodation of sixteen patients, and was expected to cost twenty-seven thousand dollars.

CASES OF PARALYSIS ACCOMPANYING STRICTURE OF THE URETHRA.

EXTRACTS FROM A PAPER ON "UNIQUE CASES, MEDICAL AND SURGICAL," READ BEFORE THE N.Y. MED. LIBRARY AND JOURNAL ASSOCIATION, FEB. 17TH, 1875.

By EDWARD BRADLEY, M.D.,

NEW YORK.

THE following case was that of a gentleman who came to me a year ago (after having been exposed to the cold for some time) suffering from acute prostatitis, which had come on after what he had supposed to be an attack of gonorrhœa. His symptoms were slight muco-purulent discharge from the urethra, prostate gland enlarged and tender, incontinence of urine, with great vesical tenesmus, high temperature, with excessive nervous irritability; following later was cystitis with complete paralysis of the bladder, urine loaded with mucus and pus. Kidneys painful, but free from disease; urethra along its whole tract highly sensitive, with the meatus contracted, so that the passage of a 16 French bulb was very difficult; stricture three inches from the meatus defined by a 20 French, about one-half of an inch in length; his nervous prostration was very alarming, and at times he presented symptoms of paralysis of the lower extremities; bowels exceedingly constipated. He continued in this state with slight improvement for nearly two months, and for the first three weeks of his illness I had to draw off his water daily. After a long course of treatment with a long list of remedies internally, combined with washing out the bladder, with medicated solutions varied in their nature, the use of electricity, oxygen gas, etc., and after repeated and earnest solicitation, I succeeded in educating him up to the proper treatment for the permanent relief of all his trouble, which was to divide all his strictures, and make the urethra its normal calibre. His penis measured 3¾ inches in circumference. Ether was administered, and I cut the meatus up to the 36 French bulbous instrument, and divided the stricture freely; with Dr. Bumstead's instrument, passed 36 F. into the bladder. The improvement was rapid, marked, and gratifying. He was only confined to his room two days, all symptoms of cystitis rapidly subsided, the swelling in the prostate gland disappeared, and in three months he gained 35 pounds.

This patient was thirty-two years old, and had had gonorrhœa once eight years previous. The second case was that of a gentleman forty-five years of age, who came under my care two months since, with the following history: gonorrhœa three times in ten years, and always accompanied with gonorrhœal rheumatism. Three years ago he had a severe attack, and was on his bed eight months, under the care of homœopaths, who were treating him for all kinds of troubles.

His condition when coming under my care was pitiable in the extreme; he looked like a broken-down old war horse; he was all drawn up, his neck was stiff, muscles all sore and painful: joints puffy, red and painful; pains in the shoulders, back, hips, knees, legs and feet; inability to raise his hands to his head, to lie on his sides, violent spasms of the whole body if he attempted to use any muscle; incontinence of urine, vesical tenesmus, accompanied by a terrific neuralgia of the bladder, etc.; penis constantly moist with a thick creamy pus, with the meatus refusing to admit No. 16 F., and with another tight stricture two and a half inches from the meatus. His penis measured three and one-half inches in circumference. On the 4th of this month I cut the meatus up to 34 F., divided the stricture also, using Dr. Otis's last cutting and dilating instrument; passed a 34 F. into the bladder freely. The patient, on coming out from under the influence of ether, was able to raise both hands to his head, and the following night he had no difficulty in turning on either side. It is now fifteen days since the operation, and all the swelling has left the joints. He holds his water, and passes a splendid stream. Is sitting up most of the time. Has gained perceptibly in flesh, and feels, as he expresses himself, "like a new man." I can now pass a 33 F. into the bladder, or rather to the bulbo-membranous junction, freely. At this date, May 6th (3 months since the operation), the patient is enjoying good health, has gained in flesh and strength, and is free from all symptoms of rheumatism, and passes water freely.

CASE OF STRICTURE OF THE URETHRA FOLLOWED BY PARALYSIS.

I am indebted to my friend Dr. Chas. E. Simmons for the following interesting case. During the summer of 1873, a gentleman, forty-five years of age, had been complaining for some weeks and had suffered from severe attacks of cholera morbus, when he was suddenly taken with paralysis of both upper and lower extremities. He had been to Long Branch on business, and while there he found himself unable to raise his feet except with difficulty, and while walking on an uneven surface he lost his balance and fell several times. After stumbling through the village he returned to New York, and on arriving here was unable to stand or walk, and was carried home. Dr. S. found him unable to raise himself out of the bed; without muscular control of the extremities or of the head. He had no pain. On questioning him closely he stated that only the day before he felt weakness in the lower extremities. The doctor learned that he had been suffering for twenty years with stricture of the urethra, and on examination found a tight stricture, some three inches from the meatus. The stricture had caused him no particular trouble until within the past fifteen months. From that time the passage had grown very small, and he had passed water with great difficulty; oftentimes he would be three-fourths of an hour emptying the bladder sufficiently to give him relief, and for the past six months he had considerable pain in the lumbar region. His general health had failed rapidly. Upon examining his urethra it was with great difficulty the doctor could introduce the guide to Dr. Gouley's instrument. The doctor's diagnosis was reflex paralysis from stricture, and his prognosis was favorable. The treatment required was removal of the cause. A consulting physician, standing high in the profession, was called in, who pronounced it a case of incipient myelitis, and gave a very unfavorable prognosis, basing his opinion on the fact (as he stated) that there was numbness with partial paralysis of both upper extremities, which, as he remarked, could not be the case in reflex paralysis from stricture. Dr. S. was allowed to go on with the case. He accordingly operated, using Dr. Gouley's instrument, dilating the urethra so as to admit a No. 12 catheter. On removing the instrument two inches of the mucous membrane was torn out. The catheter was introduced, and allowed to remain in several days. Improvement was marked the *next day* after the operation in all the symptoms. In one week all paralysis had disappeared, and in three weeks he had entirely recovered; sailed for Europe, spending three months there, and more than eighteen months have since passed, and he has had no return of his trouble.

1 W. 24TH STREET.

A CASE OF CONGENITAL ANAL OCCLUSION OF AN UNUSUAL KIND.

By SUSAN DIMOCK, M.D.,

RESIDENT PHYSICIAN TO THE N. E. HOSPITAL FOR WOMEN AND CHILDREN.

WITH AN OBITUARY OF THE AUTHOR,

By MARY PUTNAM-JACOBI, M.D.,

NEW YORK.

Nora N——, a mulatto child of 11 years, was brought to me in summer for examination, with a view to an operation for incontinence of fæces. From the rather imperfect history given by the aunt of the little patient it appeared that at birth the anus was imperforate, with, however, a fistulous opening in the perineum. Within the first week after birth, she was operated upon at the Massachusetts General Hospital by Dr. S. Cabot, with whose kind permission I insert the record of the case. While there "a diagnosis was made of congenital constriction of anus, the passage being pervious, admitting a full-sized probe. A small sponge tent was introduced and retained in place by adhesive strips. Next day a No. XII. bougie was introduced. The opening was then considered large enough, and the patient was discharged. Was readmitted to the Hospital a short time after, on account of the opening being insufficient for the demands of nature, and an operation was now deemed necessary. Upon further examination the case was decided to be one of congenital occlusion of the anus. The place where the true anus should be was marked by a depression and discoloration of the skin, but no opening existed there. One inch in front was the fistulous opening enlarged by Dr. Cabot, through which the fæces were discharged. A large silver probe was introduced into the false anus, and carried back as far as the centre of the depression in the direction of the true anus. With the probe for a guide a + incision was made through the skin. The mucous membrane exposed by the incision was then united to the edge of the wound by means of three sutures. A small roll of cloth, well oiled, was introduced into the anus and left for a short time. Fæces continued to pass through both openings, when the patient was discharged."

The passage of fæces has always been involuntary, and the action of the bowels very irregular, there being sometimes no movement for a week, and at other times as many as twenty-four discharges in a day, while, whether constipated or otherwise, there is no voluntary control over the passage.

Upon examination, I found two openings into the rectum, one (the artificial opening) where the anus is normally found, large enough to admit a goosequill, the other opening through the perineum about three-quarters of an inch in front of the first, and large enough to admit the fourth finger. The child being very nervous, very sensitive, poorly nourished, and slightly feverish (the temperature ranged from 99° F. to 100° during several evenings when it was observed), all operation was deferred, and nourishing diet and out-of-door play recommended during the summer.

In September the patient entered the New England Hospital for Women and Children, and upon the 13th was etherized for thorough examination and such operation as should show itself advisable. I had hoped that the contraction of the artificial anus might be owing to the sphincter, and might be overcome under the influence of ether, in which case a closure of the congenital fistulous opening would remedy the evil, but I found that the anus remained impervious to the finger, a tense cicatricial ring preventing the least dilatation, while water injected flowed constantly from both openings, showing the entire absence of any sphincter action.

Under these circumstances, the best thing seemed to be the division of the bridge between the two apertures, and I hoped that the one large opening thus formed might become small through cicatrization of the cut surfaces, and that even perhaps later a tolerable sphincter might develop itself through use, as is often the case. I therefore divided the bridge of the perineum without much bleeding, the tissue cutting like cicatrix, and the cut surfaces, which were half an inch in diameter, retracting immediately to a line. The opening thus formed was large enough to admit with ease four fingers, but to my surprise and great pleasure began to contract visibly and take on the folded appearance of a normal anus, so that after the lapse of ten minutes a quart of water being injected was *retained* perfectly, and only ejected with the use of a Sims' speculum. The after history of the case confirmed the most favorable anticipations; the wounded surfaces healed rapidly, there was no fever again, and not the least involuntary defecation. During the first week the bowels were moved by enemata, but afterwards naturally, and by the 21st of September the child was discharged well.

The question naturally arises as to the exact nature of the malformation. It seems to me that we can exclude here the usual atresias of the rectum caused by deficient development of the anal end, which, as embryonic investigations show, starts from the skin and stretches upward toward the rectum. For in such case the sphincter, which shares to some extent in the deficient development, could not have attained so perfect an action in so short a time. Neither can the anterior opening have been of the fistulous nature which is usual in many cases of aproctia, for even after opening the true anus the fæces continue to discharge involuntarily through the fistula, which is of course without sphincter. But in our case the anterior opening, the artificial anus, and the divided surfaces all contracted regularly and alike into one round aperture with sphincter action everywhere. Are we not, then, justified in considering this case one of embryonic ulceration and adhesion of the nates near the anal opening, an adhesion complete posteriorly, but leaving anteriorly a canal between the bridge thus formed and the perineum, which canal passed backward into the anus? With this view of the case, the mechanism by which the sphincter was kept powerless for so many years is easily explained. Draw together as illustration the commissures of the mouth, and the action of the orbicularis oris will be so far prevented that at least no liquid can be retained in the mouth. The adherence of the skin at the margin of the anus drew together the sphincter laterally, and rendered its circular action impossible. When this strain was taken off by the division of the bridge, the sphincter naturally assumed its normal action.

THE OBITUARY OF THE AUTHOR.

To the Editor of The Medical Record.

Sir:—The accompanying article was entrusted to me for publication by Dr. Susan Dimock, just before her departure for Europe in the ill-fated *Schiller*. I had not yet fulfilled her commission when the news of her death reached us. This news is terrible, not only to Dr. Dimock's personal friends, but to that still wider circle who had recognized her fine talents, and her great value therefore in the difficult enterprise of hewing out for woman an equal place in the medical profession. Dr. Dimock graduated with honors at Zurich after the prescribed four years' term of study. Her thesis was written on the cases of puerperal fever she had had an opportunity of observing in the wards of the hospital. She has been practising medicine in Boston a little over two years, but in this short time has already won for herself a deserved reputation among some of the best surgeons in the city. As resident physician at the New England Hospital, she has already performed many important surgical operations. A case of vesico-vaginal fistula was published in your columns some months ago. The brief note that I have again the honor of sending to you relates a successful operation on a child, on whom so distinguished a surgeon as Dr. Cabot had already operated in vain. Last fall, while on a visit to Boston, Dr. Dimock showed me the photographs of another hospital patient, from whose neck she had removed a large sarcomatous tumor. The operation had been performed in the presence of the students of the hospital and of Dr. Cabot, consulting surgeon. After reading the record of the case, I mentioned a precisely similar operation that I had seen performed by Richet in the Clinique at Paris, and the lecture, in which he described the great difficulties of removing a tumor deeply imbedded in so dangerous a locality. The Professor had seemed not a little proud of his own success in coping with these difficulties, and had taken care that a numerous auditorium should witness *his* triumph. At this Dr. Dimock laughed, and said, "I was asked why I had issued no invitations, but I had forgotten all about them." She added, "Indeed I have too little personal ambition to care who sees, when I am once assured my work is well done." The remark was characteristic of the modesty and simplicity that distinguished the young surgeon. She was as fresh and girlish as if such qualities had never been pronounced by competent authorities to be incompatible with medical attainments. She had indeed a certain flower-like beauty, a softness and elegance of appearance and manner such as is abundantly lacking in the women most eager to denounce surgical accomplishments as outrageously unfeminine. I have wondered whether she did not resemble Angelica Kaufman. Underneath this softness, however, lay a decision of purpose, a Puritan austerity of character, that made itself felt, though unseen. "She ruled her hospital like a little Napoleon," said a lady who had been there under her care. The ideal steadfastness, which is only possible in characters of this kind, was shown to me at my first interview with her, when she came—a girl scarcely out of her teens—to Paris, on her way to Zurich. We urged her to spend a few days in the capital, for the sake of the recreation to which American students usually consider themselves entitled before they settle down to their studies. Miss Dimock alone refused, for the reason, which she gave with the utmost frankness, that she had been obliged to borrow money in order to prosecute her studies, and should not feel justified in spending a cent of it for amusement or sight-seeing. She put forward all amusements into the future, until she should have won her university degree, and should have fulfilled a pledge of hospital service in Boston. Towards this horrible voyage of April, 1875, converged the pleasurable anticipations of nearly seven years. Among all the bright lives that have been engulfed in this dreadful shipwreck, none is more valuable than hers. Perhaps no woman's life of equal social value has met this tragic fate since the body of Margaret Fuller was washed ashore on the western coast of the Atlantic. For the success of the social enterprise of securing for women a place in the medical profession finally depends upon but one condition, the demonstration, namely, by repeated indubitable practical evidence, of their real fitness for each branch of its work. None are fitted for all, and both the surgical talents and surgical training of Dr. Dimock are certainly, at the present date, exceptional among women. It is on this account that her loss is literally irreparable, for at this moment there seems to be no one to take her place. Many battles have been lost from such a cause. But although ours be ultimately won, we would not, if we could, grieve less loyally for this girl, so brilliant and so gentle, so single of purpose, and so wide of aim, whose life has been thus ruthlessly uprooted and thrown upon the waves at the very moment it touched upon fruition.

Mary Putnam-Jacobi.

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CHLOROFORM AND NITRITE OF AMYL.

By F. A. BURRALL, M.D.,

OF NEW YORK.

In the *Medical Times and Gazette* of Dec. 12th, 1874, is an account of some experiments by Dr. Schüller, made for the purpose of determining the action of certain drugs upon the vessels of the pia mater. It is stated that "after the inhalation of chloroform the veins and arteries of the pia mater at first contract, but they very soon become relaxed, and considerable venous congestion follows. Dr. Schüller has made the interesting observation that nitrite of amyl not only quickly removes the effects of chloroform on the vessels of the pia mater, but in cases of advanced narcotism from the latter drug, it rapidly relieves the dyspnœa and labored respiration, and renews the strength of the pulse, while at the same time it restores the animal's reflex excitability in an astonishingly short space of time." The author of the communication to the *Medical Times and Gazette* then adds: "We are not aware whether nitrite of amyl has been tried in cases of danger from chloroform in man, but the above observation is worth remembering by those engaged in its administration, and it may possibly be the means of saving valuable lives."

Those who have struggled with sturdy patients through the maudlin inebriety which usually precedes the anæsthesia produced by ether, would fain prefer the brief excitement and calm slumber which are induced by chloroform. But chloroform has fallen into disfavor since so many deaths have attended its use. Children and parturient women have been found to bear it exceptionally well, and it is regarded as a comparatively safe anæsthetic for the field. But the mortality among others has been, as compared with similar agents, very large. Hence the inconveniences incident to the employment of ether do not counterbalance the risks of chloroform, and ether is preferred for general use. Perhaps Dr. Schüller's experiments will enlarge the field for the safe administration of chloroform.

Whether nitrite of amyl has been used to avert the dangers from chloroform in man I do not know, but it has long seemed to me, from *à priori* reasoning, to be indicated under such circumstances, and in a short paper on the nitrite of amyl which I sent to the New York *Medical Gazette* of June 11th, 1870, I recommended its use in the following words: "*It would seem worthy of a trial in the threatened syncope from chloroform; since the inhalation of but a few drops is followed* *by marked acceleration of the heart and flushing of the face.*" In my own practice I have never had an opportunity of making the trial, but with this stronger light of recent investigations should consider it more than ever a duty to do so.

Evidently, with these experiments of Dr. Schüller before us, science now demands that *whenever chloroform is administered, the nitrite of amyl should be at hand as one of the agents to be employed in case of impending danger.*

Progress of Medical Science.

The Therapeutic Value of the Balsam Copaiba.—Dr. Hall, Surgeon in the Army Medical Department, calls the attention of the profession to the value of the balsam in other cases than in those in which it is generally employed. After referring to the value of the balsam as a diuretic, as set forth by Dr. Dixon in *The Practitioner* for February last, he says that we know it is givén almost exclusively in gonorrhœa, so much so that persons for whom it is prescribed are usually suspected of suffering from that disease. The following statements, however, show that the doctor believes it to be a valuable remedy in other cases. In inflammations of the eye, he reports an instance of severe iritis in a soldier, whom he saw in consultation with the regimental surgeon. He found the right eye highly inflamed, the whole of the anterior chamber being filled with pus. Vision was entirely lost. The man had suffered from syphilis, and had been treated with various remedies, but with no beneficial result. He thought that the eye was destroyed beyond redemption, but suggested a trial of the drug, as he had seen the good effects of the balsam before, in cases of iritis. Two drachms, in mucilage, were therefore ordered three times a day. Two days after, the pain had subsided, and daily the pus could be seen to be gradually disappearing. In ten days he could see the length of the ward, and after twenty days the eye was quite well. An account of the case is given in the *Indian Medical Gazette* for September, 1872, by Dr. Tothill, who wrote that the balsam had acted like a charm, and all who saw the man were convinced that but for it the eye would have been destroyed. For some years past, in India, Dr. Hall has been in the habit of giving it in all cases of iritis and sclerotitis, and he found it far preferable to turpentine, as it does not produce strangury. The pain of sclerotitis he has often found to subside, and the inflammation disappear after four or five large doses of the balsam. In 1872 he had at one time under his care more than thirty children suffering from purulent ophthalmia, and he treated them all by simply painting the lower eyelids, upper part of the cheeks and the temples, with the pure balsam, and they all quickly recovered without damage to the eyes.

In threatened mammary abscess, Mr. Hall thinks the drug may often be employed with success. He attended at the confinement of a delicate woman, who had previously suffered from a mammary abscess, which had been treated by leeches and an antiphlogistic regimen.

In the confinement to which he referred the other breast became inflamed, and she felt convinced, judging from her former sensations, that an abscess would form. The breast was hard and painful, and she was obliged to give up nursing her infant. He ordered a full diet, with porter and port wine; and every morning, for a week, painted the whole surface of the breast with the pure balsam, covering it with flannel and oiled silk. Whether the copaiba prevented the formation of the abscess he is not willing to affirm, but no suppuration occurred. As a rule, he thinks that it is in the weak and anæmic that these abscesses form, and probably the nourishing diet did her most good. But he has employed the balsam in other inflammations, locally, with advantage.

Mr. Hall refers to its use in chronic rheumatism, especially in old people, and he also mentions its beneficial effects to some skin diseases and in its local application to old indolent ulcers of the legs.—*The Practitioner*, April, 1875.

Bicarbonate of Soda in the Treatment of Toothache.—Dr. Duckworth, of St. Bartholomew's Hospital, has related a case of severe toothache which was almost immediately relieved by the use of bicarbonate of soda, after various other remedies had failed. The patient was a boy, suffering from caries of one of the molar teeth. Chloroform was rubbed outside the cheek, and some on cotton wool was placed inside the auditory meatus. These means failing, a plug of cotton saturated with chloroform was inserted in the cavity of the tooth. This was also unsuccessful. Next, pure carbolic acid on cotton was placed in the cavity, but no improvement followed, and chloroform was then again tried without success. As a last resource, a solution of bicarbonate of soda, of a strength of about half a drachm to an ounce of water, was tried with the above happy result. He says that a mouthful of cold water will sometimes relieve the pain of toothache, but he cannot remember whether he tried that plan before using the solution of soda. It struck him as noteworthy, that a feeble alkaline solution should produce such a decided effect after the application to the sensitive dentine of a powerful agent like carbolic acid. If the toothache be excited by unhealthy (acid) saliva, or buccal secretion, it becomes intelligible that an alkaline solution should rectify this. He suggests that it would be well to test the reaction of the saliva and of the buccal mucus in cases of toothache, with a view to ascertain their possible influence upon the surfaces of carious teeth, and he believes that the saliva will be found to give an acid reaction more often than is generally believed or taught. He also suggests the use of a warm solution of the bicarbonate, so as to be more sure of the effect of the remedy employed.—*The Practitioner*, April, 1875.

Experiments on the Effects produced by Ligature of the Ductus Choledochus, and on the Condition of the Blood in Malignant Icterus.—It is stated in a note to the French *Academie des Sciences*, that MM. Feltz and Ritter have ligatured this duct in nine instances, and have shown by their experiments that the blood absorbs the biliary salts and retains them for a longer or shorter time, and is in consequence more or less altered. The blood globules become diffluent; the hemaglobin transudes and even crystallizes; the fatty granules, in considerable quantity, and the crystals of cholesterine, accumulate in the serum. This alteration in the blood varies with the quantity of biliary acids which are present. The jaundiced appearance does not depend on the biliary salts or their products, but on the retention of the coloring matter.

The absorption of biliary salts has a limit, for the biliary secretion itself diminishes when once the dilatation of the biliary passages is considerable, and when the epithelium of the passages undergoes fatty degeneration, as it does under the influence of the great increase in the intra-canalicular pressure.

This modification of the secretion is said to explain the rarity of nervous or hemorrhagic complications in icterus due to retention. In this respect there is a great difference between icterus due to alcoholism or the icterus of hyper-secretion of bile. In a single instance the experimenters succeeded by artificial retention of the bile, in producing the grave symptoms of malignant icterus, and in this case they found that the blood contained a quantity of biliary salts, about or a little exceeding one per cent. So far as the clinical value of these experiments is concerned, it is thought that a comparison between real diseases characterized by icterus and those produced artificially, shows that the severe symptoms are in a great measure due to the absorption of the biliary salts into the blood.

As a general conclusion, they believe that intoxication of the blood is the characteristic of all so called *bilious* conditions, whatever they are. The morphological and chemical changes in the blood are therefore the principal lesions of such diseases.—*La Tribune Méd.*, April 18, 1875.

RECENT VIEWS ON THE MONOBROMIDE OF CAMPHOR.—Dr. Lawson, of London, who contributed an article to the *Practitioner* some months ago on Camphor and its monobromide, found at that time that the conclusions he had reached were, in a measure, confirmatory of those recorded by Dr. Bourneville, of Paris. More recently, however, he has made a long series of experiments on various animals, the results showing that the drug possesses, as shown by Bourneville, marked hypnotic and calmative properties, while on the other hand, it has many objectionable features which stand in the way of its employment in practical medicine. These latter are principally its insolubility and the gastric irritation which is apt to follow its use. Dr. L. states that a glance at the substances which are accepted as indubitably possessing the therapeutic features claimed for this medicine, will show how far it falls short of the potency and fitness possessed by the former. Opium, chloral, cannabis indica, bromide of potassium, belladonna, hyoscyamus, conium, ergot of rye, valerian, assafœtida, and all diffusible stimulants possess many of the medicinal functions ascribed to the new drug.

The author states that he will not deny that by virtue of its hypnotic properties monobromide of camphor may, when administered in sufficient quantities, produce sleep in insomnia, subdue emotional, sensory, and motor irritations in hysteria, control convulsions, and even overcome the excitement of delirium tremens, yet it is evident that the drug cannot operate with the certainty and safety of other well known remedies Monobromide of camphor is an agent distinguished on the one hand by the absence of any independent or special therapeutic value, and on the other by the presence of several faults from which many analogous and more potent substances are altogether exempt.

M. Trasbot, of Alfort, has been even more unsuccessful in obtaining the results claimed by M. Bourneville. He observes that neither somnolence, slackening of the pulse, nor diminution of the temperature followed its employment, but the patient had attacks somewhat resembling tetanic convulsions.

M. Paul has tried it in one case of convulsive hysteria; M. Dujardin-Beaumetz in thirty cases of hysteria, epilepsy, or troubles of the genito-urinary organs. The results were unsatisfactory in epilepsy; in hysteria the change was slight; in spermatorrhœa, however, the drug was very effectual, but the action was due rather to the camphor than to its bromide. M. Gubler employed it unsuccessfully in four cases of hysterical vomiting. The patients complained of heat over the epigastrium. and they had fever with general excitement, but the vomiting continued.—*Practitioner*, April, 1875, and *Trib. Méd.*, April 18, 1875.

NITRITE OF AMYL IN EPILEPSY.—We are indebted to Dr. James H. McBride, of the Hospital for the Insane at Oshkosh, Wisconsin, for some valuable observations on the action and use of nitrite of amyl in epilepsy. It is stated that epilepsy depends upon a condition of cerebral anæmia induced by spasmodic contraction of the arteries of the brain. The action of amyl is directly antagonistic to this. It causes distension of the cerebral blood-vessels and congestion of the brain. The action of the drug was very prettily demonstrated in some experiments which were made by McBride and Kempster. A portion of the skull of a live full-grown rabbit was removed, so as to expose a considerable surface of the cerebral membrane. After the effects of the anæsthetic used during the operation had passed away, the nitrite of amyl was administered, and its action on the brain observed through the aperture in the cranium, with the aid of a strong lens. In a few moments the vessels of the pia mater became engorged with blood, so that vessels could be seen distinctly which were before invisible to the naked eye; the brain became dark and congested, and so swollen as to protrude through the artificial opening. At the same time the external vessels of the ear were distended with blood. The inhalation being stopped, all these symptoms soon disappeared, and returned as soon as the amyl was administered again. A second experiment of like character yielded precisely the same results.

McBride details several instances in which the nitrite of amyl has been employed under his observation for the treatment of epilepsy. The results were remarkably favorable. The effect of the remedy was immediate, and its efficacy in warding off imminent attacks was particularly striking. The good effect does not appear to have remained, however, after discontinuance of the remedy. The mode of administration consists in dropping ten to fifteen drops upon a piece of cotton, and the vapor is then inhaled.

Particularly favorable results are promised in those cases where the aura is very decidedly marked. A caution is given against employing the nitrite of amyl in certain spurious forms of epilepsy, convulsions which are dependent upon congestions of the brain, where the drug might have a decidedly pernicious effect, through simply aggravating the existing disturbance.—*Chicago Journal of Nervous and Mental Diseases*, April, 1875.

PHYSIOLOGICAL ACTION OF THEBAIN.—Dr. J. Ott reports some experiments made with the object of determining the action of thebain—one of the most deadly toxicants amongst the alkaloids of opium—upon the animal economy. The results of his investigations are given in the following *résumé*:

"1. Thebain is a tetanoid agent, and pigeons have no special immunity against it.

"2. The tetanus is not cerebral, but spinal in origin.

"3. The motor and sensory nerves and the striated muscles are not affected by it.

"4. It increases the pulse and blood-pressure by an action on the vaso-motor centre and the heart itself.

"5. The reflex action of the depressor nerve is in no way interfered with."—*Bost. Med. and Surg. Jour.*, April 8, 1875.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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WHAT CONSTITUTES ADVERTISING?

We would be disheartened in so frequently referring to newspaper advertising if we were not interested in the solution of the question by the profession. If it is not wrong to advertise, to publish our medical papers in the daily press, and to be heralded to the gaping multitude as leaders in medical thought, as expounders of new doctrines and the like, then we might as well all turn quacks at once. It is pretty certain that the line must be drawn somewhere. Every little while the necessity for some conclusion in regard to this matter is forced upon us by some of the professional advertisers.

We hear a great deal of talk by the societies about the dignity of the profession and the enforcement of the Code, but when any positive decision is required, when any discipline is needed, there is a strange and unaccountable silence. Most, if not all, of the progressive gentlemen who believe it is right to advertise as they do are members of respectable societies, and many of them not only hold official positions therein, but are the very priests at the altar, members of the committee of ethics, the least of whose duty it should be to show an example to some of those who have lesser responsibilities. The various county societies pretend to interpret the Code, and yet, except in the case of some poor, obscure, and friendless transgressor, when do they ever discharge their obligations to the profession?

In view of the acknowledged necessity of educating the public in medical matters, a very interesting question comes up—how can this be done with propriety, how can the profession accomplish good in this direction without danger of violations of the Code? The Kings County Medical Society has attempted a solution of the difficulty, in the organization of a department of public instruction, whose duty it shall be to select and publish such material as shall be of benefit to the public. The details of their plan of operation may be open to many objections, but the principle of censorship sought to be established by this committee, is a good one, and worthy of all imitation. This takes the responsibility of the publication of medical papers out of the hands of the authors, and is, in our opinion, one of the principal means of securing a desirable end.

The time has passed to declare that it is wrong to publish any medical matter in the daily papers. There is some information which we can impart and to which the public are entitled, and it is just as much our duty to furnish such information, as it is to discharge any other professional obligation. These duties are thus defined by the Code of Medical Ethics:

"As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession, as on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, or drainage, ventilation, etc.—and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger and to continue their labors for the alleviation of the suffering, even to the jeopardy of their own lives."

In following out the letter and spirit of this injunction, it is clearly seen that an abundance of latitude is given for not only benefiting the public directly, but for elevating the profession indirectly. Herein are stated all the subjects concerning which the public really have any concern; and information about any one of them does not necessarily imply the possession of any knowledge not shared by the profession at large. On these matters we speak as a profession, but not as individuals. The greatest credit which any expounder of medical truth should claim of the public he instructs, is that of being well grounded in the fundamental truths of his art; if he goes beyond this and claims to possess a special knowledge of the subject for which, as an individual, he expects to benefit, he at once becomes a quack. And here we think the line should be drawn between the public benefactor and the professional advertiser.

Our duties to the public refer entirely to the prevention of disease, and not to its cure. A general knowledge is sufficient to appreciate the truths of the former, but a special education is absolutely necessary to understand the latter. On sanitary matters the general public is well calculated to judge, and is prepared to receive instruction. For instance, in matters of drainage, cleanliness, ventilation, and other hygienic measures, they are well enough informed to appreciate what is new and useful, and to apply the truths accordingly. In so far as pure sanitary science is concerned, the profession may be considered as speaking to a well educated, appreciative, and discriminative audience. On special professional subjects, however, the case is so entirely different as to admit of no comparison whatever. The public need no such information, are not prepared to receive it, and have no possible means of judging of its value. Generally what is really worth nothing as a contribution to medical science proper is believed to be of the greatest value by outsiders. The author of such a paper generally appears as a great expounder of some new doctrine, and not unfrequently conveys the impression that he is the centre around which the whole science of medicine revolves. The more abstruse his statements, and the more unintelligible he makes himself by the use of technical terms, the greater idea the people have of his profundity. And how is the public benefited by papers on pathological anatomy, the origin of the nerve centres, and the like? There is no question in the mind of every professional man what is the motive for the publication of such material. It is a flimsy excuse for the transgressors of the Code to plead a desire to educate the masses. If they are guided by their consciences to do such a thing, the Code very distinctly points out the way for them. There is enough of accepted truth in medicine, a knowledge of which is not only necessary but useful to the public, to employ all the time and energies of the ambitious educators. But this is not the way to be benefited and get practice. It is necessary to make some discovery, and every little while startle the public with the idea that the medical profession, and science in general, could do nothing without them. If such persons can prove to the public that their professional brethren know nothing and that they know everything, it is sufficient to insure a large business. This is the only motive for this kind of advertising, and it is transparent enough for the most stupid observer. As we have before remarked, it is the duty of the different societies to settle where the boundary line should be. It is very easy to enforce discipline if they dare do it. The Medical Society of the County has members who openly, persistently, and defiantly advertise, and its obvious duty is to punish the wrong-doers. The Medico-Historical Society has a duty to perform in this matter in erasing from the list of honorable medical men the names of these advertisers. Whether this association dare do this is a very serious question to propound, notwithstanding at the head of their list of names are extracts of the Code bearing particularly upon the sin of advertising. If this cannot be done with the *Medical Register* it must cease to be authority for the profession at large. We wait with no little anxiety to see if, in the next volume of this annual, so soon to appear, the society is ready to back a principle at all hazards, or disgrace itself by trimming to an expediency.

SECOND-HANDED PAPERS BEFORE SOCIETIES.

During the recent meeting of the American Medical Association, the question concerning second-handed papers came up for a decision. It has been the fashion from time immemorial for certain authors of papers to peddle them from one society meeting to another, and make all the capital they can before strange audiences. Not unfrequently these articles have been read over five or six different times as original ones, and lastly are presented before one of the sections of the Association, and appear in the transactions. The practice has indeed been carried on to such an extent that it has been looked upon as one of the recognized means of cheap advertising. Such papers frequently make their first appearance before some county society, and in a large city go the rounds of all the greater and lesser associations, until the annual meeting of the State Society, when they are read again, and if by that time they are not published, the chances are good for some of the sections referred to. The same thing is done with some remarkable case, the relator presenting it before every association of which he is a member, until it is known by all society-goers as a very old story.

The committee who have had charge of the selection of papers to be read before the sections have taken a very commendable stand in this matter by ruling out everything which is not entirely new. In spite, however, of their determination to be radical in this respect, it seemed impossible to prevent the presentation of some papers which were not only read before, but abstracts of which have already been widely published. Now, however, that the proper initiation has been taken, we shall hope for better things in the future. Let the other societies follow the example.

THE SUIT FOR MALPRACTICE.

The suit for damages against the N. Y. Eye Infirmary, and Dr. Derby, one of the surgeons of that institution, has terminated by the acquittal of the defendants. This was a case in which an attempt was made to show carelessness on the part of the surgeon in using a brush not properly cleansed, for the application of nitrate of silver to the eye of the plaintiff. It was claimed that the said brush contained pus from an infected eye, and that in consequence a destructive inflammation of both the eyes of the plaintiff ensued. The defence claimed that the brush was thoroughly cleansed, that every ordinary precaution was taken to guard against bad results, and that the patient not only voluntarily absented himself from the institution, but placed himself under the care of his family physician, who, for some reason not explained, departed from the usually accepted treatment of such cases by applying hop poultices.

A number of distinguished oculists testified on behalf of the defendants, and the jury had no hesitation in bringing in a verdict.

The result was as was expected, and reflects credit upon the trustees of the institution for care in its management, while it detracts nothing from the well-known skill of the surgeon who had the charge of the case in question.

MEDICAL LEGISLATION IN TENNESSEE.

At a recent meeting of the Knox County Medical Society, a committee which was appointed to make suggestions regarding a bill for the regulation of the practice of medicine, pending before the Legislature of Tennessee, offered the following:

"That the less the medical profession, as a profession, has to do in identifying itself with legislative enactments, and the more its members are left each to be his own cicerone before the public, and answerable to public opinion and the laws as they are for any damage he may commit, the more respect will be given to the whole profession."

The following resolution, after considerable discussion, was also adopted:

"*Resolved*, That the secretary be instructed to request Senator Ellis to place a clause in his bill, making it a misdemeanor for any one to claim to have graduated in a Medical College, or taken the degree of M.D., when such is not the case."

This is an evidence of the growth of medical sentiment in regard to special legislation which is certainly very encouraging.

Reports of Societies.

AMERICAN MEDICAL ASSOCIATION.

REPORT OF SECTIONS.

Section on Practical Medicine, Physiology, and Materia Medica.

Dr. Austin Flint, of New York, Chairman.
Dr. ——— Bartlett, of Wisconsin, Secretary.

Tuesday, May 4—First Day.

The first paper read before the Section was a report by Dr. N. S. Davis, of Chicago, upon

THE NECESSITY OF CO-INCIDENT CLINICAL AND METEOROLOGICAL RECORDS IN THE STUDY OF METEOROLOGICAL INFLUENCES AND ATMOSPHERIC CONDITIONS IN THE DEVELOPMENT OF BOWEL AFFECTIONS OF CHILDREN.

This report was made in conformity to a suggestion offered at the last meeting of the Association, with reference to pursuing definite lines of investigation for attaining definite data concerning the beginning of diseases.

The author claimed that when we come to study this question of etiology, we are met with difficulties not easily overcome, and chief among these is the absence of continuous and carefully recorded facts with regard to appreciable conditions or qualities of atmosphere, and the date of the initial symptoms of the disease. We have at our command meteorological observations such as relate to the extremes of heat and cold, velocity of the winds, quantity of ozone present in the atmosphere, etc., but, on the other hand, the data with reference to the commencement of disease are almost entirely absent.

To study satisfactorily the cause of acute diseases, there is need of three distinct series of observations and records, made simultaneously and continued through a series of years. One of these should consist of a complete register of atmospherical conditions, including electricity and ozone.

Another is observations made by active practitioners of medicine with reference to the commencement of the active symptoms of acute diseases coming under their observation, and the date of recurrence, when such occurs.

The third series of observations should be microscopical, and made with reference to the atmosphere and liquids taken into the body.

If this series of observations can be made, there will be a basis established for observation and deduction, and we shall be enabled to trace the relation between attacks of acute diseases and their causes.

The report was accepted, and the resolution, recommending the renewal of the special committee whose duty it shall be to prosecute the work and report progress at the next meeting of the Association, was adopted.

A lengthy discussion followed, which was participated in by Drs. Edgar, of St. Louis; Wood, of Philadelphia; Davis, of Chicago; Woodruff, of Indiana; Bartholow, of Cincinnati; Gaillard, of Louisville; Ulrich, of Pa.; and Johnson, of Missouri.

The report was referred to the Committee on Publication.

The second paper was read by Dr. Clark, of Boston, on

THE SIGNIFICANCE OF DOSES IN MEDICINE; OR, DOSES, THEIR PHYSIOLOGICAL AND THERAPEUTICAL IMPORT.

Of doses there are the single, the continued, the frequent, and the toxicological. The first and the last are those given in treatises upon materia medica.

The continued and frequent doses were specially considered.

The continued dose is the administration of a drug in such a manner that elimination of one dose does not take place completely before the absorption of the following dose is commenced. In this manner the blood is kept constantly charged with the drug.

The single dose may charge the blood with the drug, but elimination is permitted to take place before absorption of the second dose is begun. The physiological and therapeutical difference between these doses is important. Ammonia, gallic acid, bromide of potassium, alcohol, etc., were referred to as remedies readily absorbed, and rapidly eliminated; and if the physician desires to obtain the best effect from those drugs, or a prolonged effect, he must give them in such a manner that elimination of one dose will not be completed before absorption of another will have been begun.

The man who takes an eye-opener in the morning, wine for dinner, a digester for supper, and a night-cap for the night, is constantly under the influence of alcohol.

The frequent dose is giving of medicine so as to impart to the organism some one or more of its actions in rapid succession. For instance, aconite may be given in five-drop doses of the tincture, but one-half-drop doses repeated every half hour for ten times, or drop doses repeated every hour for five hours, have a far different physiological and therapeutical effect than when the entire five drops of the drug are given at once.

The special point in the paper insisted upon by the author was, that continuation of doses was not necessarily a continuous dose; but in order to administer a continuous dose the ratio between absorption and elimination must always be kept in mind.

The paper gave rise to considerable discussion and complimentary remarks. It was referred to the Committee on Publication.

Wednesday, May 5—Second Day.

BIOMETRY IN ITS RELATION TO THE PRACTICE OF MEDICINE.

The first paper of to-day's session was read upon the above subject by Dr. Moreau Morris, of New York.

The paper will be published in full in a subsequent number of this journal.

It was referred to the Committee on Publication.

Dr. Bartholow, of Cincinnati, presented some practical observations upon

EXOPHTHALMIC GOÎTRE AND ITS TREATMENT.

The essential features of the disease were considered, the relation which they sustained to each other, with reference to priority of development, and the fact that in some cases all the symptoms may be absent except the excessive action of the heart and lack of co-ordination of the upper eyelid, first described by De Graffe.

All the cases which he reported were treated by galvanization of the pneumogastric and sympathetic nerves, and with good success.

Dr. Davis, of Chicago, mentioned the fact that under his observation a few cases had done remarkably well upon a rather protracted treatment, consisting of carefully regulating the diet, careful exercise in the open air daily, and the internal use of the co. syr. of the hypophosphites, taken after meals, and digitalis pushed at first sufficient to produce positive slowing of the pulse, and subsequently to keep the patient under an appreciable degree of influence without getting the cumulative effects of the drug.

If tonics are used they should be selected with reference to avoiding excitation of the nervous system; and if any other form of tonic is used it should be associated with some sedative which will answer the purpose of keeping down the peculiar excitability which may be produced by the tonic used. The paper was further discussed by Drs. Keyt, Flint, Octerloney, and then referred to Committee on Publication.

The report of the Chairman of the Section, read before the Association in general session, was next taken up and referred to the Committee on Publication.

CYSTIC DEGENERATION OF THE KIDNEYS

Was the title of the next paper, which was read by Dr. Octerloney, of Louisville.

It was referred to the Committee on Publication.

Thursday, May 6—Third Day.

TREATMENT OF ACUTE PNEUMONIA.

Dr. Irwin, of Mansfield, O., read a paper upon the above subject, in which he set forth his views relative to the action of alcohol in the treatment of pneumonia, and reported 147 cases. His average attendance upon the patients was five days. *Not a single death occurred.*

His statements were as follows: Alcohol is as distinctly specific in the treatment of acute pneumonia as quinine is in the treatment of intermittent fever. There are two processes constantly going on in the system—the constructive and the destructive. If destructive changes are retarded the demand for constructive assimilation will be proportionately diminished. If nutrition is deprived by one-half of its normal supply of oxygen by impermeability of the respiratory membrane, and if the process of disintegration of tissue can be proportionately diminished, the supply of oxygen will still be equal to the demand, hence asphyxia cannot result. His position was that death occurs in pneumonia by asphyxia, dependent upon an impermeable condition of the respiratory membrane. Oxygen is prevented from being admitted, and if now disintegration of tissue, which results in the production of carbonic acid gas, can be retarded sufficiently to diminish the demand for oxygen in the same proportion, it is the thing desired and indicated. Alcohol is undoubtedly an agent which possesses such power, hence its applicability in the treatment of this disease, which so materially interferes with the respiratory function, therefore the proper ratio between the constructive and destructive processes which exists in the system when it is in the normal condition.

Dr. Eastman, of Indiana, thought that there should have been more evidence presented in the paper, such as derived by physical exploration of the chest, than was given, in order that the members of the Section might have been prepared to judge with regard to the reliability of diagnosis.

Dr. Davis, of Chicago, regarded the diagnosis as being exceedingly suspicious, taken in connection with the fact that not a single death occurred out of the 147 cases reported.

Dr. Yandell, of Louisville, remarked that the success obtained in the treatment of these 147 cases surpassed all his powers of belief.

Dr. Flint, of New York, sustained the criticisms relative to accuracy in diagnosis.

Dr. Irwin remarked that the exact symptoms of a certain stage of the disease were not necessary to be considered according to his theory. The theory which he brought forward was that the impediment in the respiratory membrane is the difficulty which is at the bottom of all the trouble, and it does not matter just exactly as to the stage of the disease so that that condition still obtains. He remarked that he was not at all surprised that the profession is altogether astounded with the results of the treatment. With regard to the criticism upon correctness of diagnosis, mistakes are hardly presumable in these days, where a man sees that number of cases, and it is nothing unreasonable to suppose that an active practitioner may see such a number of cases within twelve years.

The paper was referred back to the author for further investigation.

NOTICE OF THE BIOPLASSON DOCTRINE—BY DR. L. ELSBERG, OF NEW YORK.

In this paper Dr. Elsberg brought to the notice of the Section a new biological doctrine, intended to take the place of the cell doctrine. He explained the cell theory as represented by Virchow and others, and showed that the ideas originally connected therewith had undergone a gradual change with the advance of microscopical and histological knowledge. He showed that the word "cell," to designate the organic form-element, had long been a misnomer, and claimed that, since the discoveries in histology and pathology of Dr. Charles Heitzmann, formerly of Vienna, now of New York, it would be not only erroneous in fact, but also misleading and mischievous in practical consequences, to continue to adhere to the cell doctrine. He exhibited and explained half a dozen diagrams, showing first the structure of the lowest form of animal life, the so-called amœba, found in organic infusions, in salt and fresh water, etc., and then the structure of colorless blood-corpuscles of man, as seen upon the heated stage of the microscope under varying circumstances, and with a magnifying power of from 800 to 1,000 diameters. He took up the examination of a number of tissues, such as cartilage, muscle, nerve, and epithelial tissue, and showed that, throughout, there existed, instead of separate isolated cells, accumulations of living matter connected by a network of living matter. Just as the amœba, which has been supposed to consist of a homogeneous structureless lump of jelly-like living matter, called protoplasm, containing granules supposed to be foreign ingredients, consists of a mass of living matter arranged into a network, the points of intersection of the threads of which are thickened and constitute granules, and in the meshes of which is contained the non-contractile not-living fluid,—so the whole animal body, it was claimed, represents a mass of living matter, the denser accumulations of which, the formerly so-called "cells," are connected by more delicate processes or threads of the same, in the meshes of the network of which fluid or not-living matter is contained and in the vacuoles of which float corpuscles such as the blood-corpuscles, pigment granules, etc. Dr. Elsberg showed that for the purpose of designating the living formative matter in its simplest form, as necessitated by the views he had developed, the word "protoplasm" is etymologically incorrect, and has, also, already been used by some authors with a different meaning. He therefore prefers the word "bioplasson."

In conclusion, Dr. Elsberg spoke of the significance of the bioplasson doctrine and its connection with the questions of physiology and pathology. Practical benefits sometimes flow unexpectedly from investigations purely theoretical, and he showed how such biological researches might bring us a step nearer to the attainment of the highest aim of the physician—not only the cure, but the prevention of disease.

A NEW SPHYGMOGRAPH—ELASTIC MEMBRANE AND LIQUIDS FOR TRANSMITTING THE PULSATIONS OF THE ARTERY—BY DR. A. D. KEYT, OF CINCINNATI, O.

The following is an abstract of the paper presented:

The instrument is constructed upon the principle of utilizing elastic membrane and liquid, as water or alcohol, to receive and transmit to the writing lever the movements of the pulsating artery, instead of the steel spring and rigid bar employed for the purpose in the instruments already known to the profession. Elastic membrane and liquid are so closely allied in physical properties to the arterial coats and blood as to render them very natural media for the purpose indicated. The former, in its trueness and delicacy of response to distending forces and certainty of instantaneous return to its original state when the force is removed, is nicely adapted to receive the impressions of arterial movements; and the latter, in its lightness and incompressibility yet facility of movement in the direction of least resistance, is likewise nicely adapted to receive and transmit these movements. If now a piece of rubber cloth be placed flat and made adherent to the under edge of a metal or other rigid rim of proper shape and size, and then pressed down sufficiently upon a superficial artery, as the radial, it accurately closes over and fits the vessel as a sheath. The membrane thus embracing the artery is affected by the movements. It rises and expands with the diastole, falls and contracts with the systole, and receives the exact impression of all the inner arterial changes. If now with this membrane *in situ* as a base, we fit to its rim a receptacle tapering upwards in the form of a flattened cone with a small circular opening in the top, and, filling the receptacle with water, fix over the opening a thin rubber membrane air-tight, the movements described as taking place in the lower membrane will be communicated to the liquid, and by it conveyed and transmitted to the small upper membrane, which will be distinctly seen rising and falling with the pulsations. If, next, a needle be placed with its flattened base fixed to the centre of a disk, and point impinging against the lower side of a delicate lever, the motions may be amplified to the requisite extent. It only remains, in order to get true and satisfactory motions in the tracing lever, that some device be resorted to for keeping the upper membrane always in equilibrium, standing, as it were, on the centre, ready to move up and down in strict obedience with the undulations in the liquid; for otherwise change of pressure upon the artery would throw the disk out of line of true and easy motion, and the result be *nil* or imperfect.

These principles were illustrated in the instrument exhibited.

To one of the lateral arms of the instrument is attached a glass tube, which can be placed in either the upright or horizontal position. When the instrument is in operation the tube occupies the upright position, and has three main uses: *First*, it affords a convenient receptacle for the displaced liquid which rises in the tube from the central cup as the instrument is pressed down upon the artery, and falls again into the cup when the instrument is raised off the artery. This provision allows the elastic membrane to closely embrace and press upon the artery and develop its proper tension—conditions requisite for the successful reflection of the pulsations.

The work exhibited consisted of miscellaneous tracings; tracings of the same subject in juxtaposition with those by Marey's instrument; tracings of different arteries, including the carotid and dorsal of the foot; tracings under regular gradations of pressure; tracings of young children; and tracings of heart disease, including one of the heart itself.

The Doctor in his remarks referred to his instrument as a new one, and believed that designation to be appropriate and just. He had taken some pains to inform himself as to the instruments employed in the study and illustration of the circulation, but had not found any which bear essential likeness to his own. It is true, he remarked, that the tambour polygraph and mercurial kymograph have points of suggestiveness, yet there is such a difference between these instruments and his own—difference in principle, in construction, in operation, and in results—that he did not hesitate to speak of the instrument which he presented as a new and distinct invention.

The last business before the Section was the reference of certain papers to Dr. N. S. Davis as a committee to report upon their value for the volume of Transactions, his action becoming the action of the Section.

The Section in each session was largely attended, and the rule was enforced relative to admitting papers which had already been read before medical societies, or published in whole or in abstract in medical journals.

SECTION ON SURGERY.

DR. E. M. MOORE, of New York, Chairman.
DR. S. W. BENHAM, of Pennsylvania, Secretary.

Tuesday, May 4—First Day.

This Section was well attended, and some papers were brought before it that gave rise to considerable discussion. The first paper was upon "Some Results of Operative Surgery in the Lake States, Differing Somewhat from Results Obtained Elsewhere," by Dr. Andrews, of Chicago.

Dr. **Lewis A. Sayre**, of New York, read a paper entitled, "Partial Paralysis and Want of Co-ordination Dependent upon Genital Irritation."

The title of the third paper read was, "Operation for Extrophy of the Bladder," by Dr. Cyrus B. King, of Pennsylvania.

Wednesday, May 5—Second Day.

ŒSOPHAGEAL AUSCULTATION.

Dr. **L. Elsberg**, of New York, presented a paper on this subject, which was referred to the Committee on Publication.

HYDRO-NEPHRITIS CAUSED BY THE FORMATION OF STONE IN THE PELVIS OF THE KIDNEY AND URETER.

Dr. **Leon J. Willein**, of Terre Haute, Ind., read a paper upon this subject, which consisted mainly in the recital of facts concerning a single case, of which the following is a condensed statement:

History of Case.—A male patient, æt. 26 years, who could give no family history; was in the army two years in a cavalry regiment. Towards the latter part of his term of service he was thrown from his horse, and the horse fell on him with full weight. He recovered from his injury entirely, with the exception of a dull, deep pain in the lumbar region, and slight hæmaturia at times; the latter disappearing entirely for four years previous to his death. In 1866 he commenced peddling, without complaining of soreness in the side, or suffering any special inconvenience from a gradual enlargement of the abdomen which was then present. In July, 1874, he received a severe contusion of the back and left side, which caused much pain, and a few minutes after he discharged considerable blood with his urine; the discharge of blood was repeated occasionally for two weeks. About that time he felt a tumor in the left side, very painful upon pressure, and about the size of a goose-egg, and more or less movable. On the 20th of February, 1875, he received another injury, and when called to see him the following facts were elucidated: Abdomen greatly distended, especially upon left side, where a tumor could be distinctly seen, and was easily marked out by palpation and percussion. The shape of the tumor was similar to that of the kidney, and extended from the pubis to the sixth intercostal space, measuring 15 in. Transverse diameter at lower portion, 10½ in.; upper transverse diameter, 7½ in. Cystic degeneration of the kidney was suspected and coincided in by Dr. J. D. Mitchell, and puncture was proposed. The operation was performed with a trocarte, and the cyst gradually emptied. The puncture was made about two inches to the right of the crest of the ilium. The amount of fluid removed was eight pints of a chocolate color, rather thin, inodorous, alkaline, depositing a bloody appearing sediment. After a few days the sack refilled. On the 10th of March a second puncture was made, near the same spot where the first one was made, and after about three quarts of thin fluid had been removed, there followed a thick, grumous, gelatinous substance, about a pint in quantity. On the 18th another puncture was made, and about one quart of blood and pus was discharged. Symptoms of circumscribed peritonitis were developed, and the patient died March 22d.

Autopsy, 24 hours after death. Great emaciation; skin yellow. On opening the abdominal cavity, a tumor was found, as already described, situated in the right side, extending from the ileo-pectineal eminence upwards to the sixth and seventh intercostal spaces. It proved to be an enormous kidney with a portion of the ureter, and it had acquired such a volume on account of the formation of a large stone in the pelvis of the kidney, and a small one, obstructing the flow of urine to the bladder, near its cystic connection with the ureter. The larger stone weighed over one ounce; the smaller about three drachms.

The tumor had formed adhesion over its entire surface. The ureter was greatly dilated, as well as the renal artery and veins. The glandular portion of the kidney was almost entirely destroyed. The right kidney was very much increased in size, but was quite healthy in appearance.

The points of interest in the case were:

I.—The reticence of the patient for so many years, without ever suffering from any irritation of the bladder or calculous nephritis.

II.—The perseverance at work, with healthy digestive organs, until four weeks before his death.

III.—The little evidence of inflammation until the two last weeks of his life.

THE THERMOSCOPE.

This instrument, devised by Dr. **Edward Seguin**, of New York, for the purpose of determining a very slight degree of heat, was brought before the Section by a delegate, in behalf of Dr. Sayre, who had the instrument in care.

Dr. **J. Marion Sims**, of New York, exhibited and described the "Self-Acting Blowpipe," to be used in heating irons for the actual cautery.

Thursday, May 6—Third Day.

REPORT UPON SYPHILIS.

The report upon Syphilis, read before the Association at Detroit, last year, by Dr. **S. D. Gross**, of Philadelphia, was brought up for discussion in the Surgical Section at the present session. The discussion was quite animated, and participated in by Drs. Andrews, of Chicago; Kennard and Hodgen, of St. Louis; Garcelon, of Maine; Bronson, of Massachusetts; Morris, of New York; and Gross, of Philadelphia.

It turned upon the question of national legislation with reference to this disease, and upon motion the Committee of the Section was instructed to elaborate and report, for consideration at the session of the Association for next year, a draft of a national law. The recommendation of the Section relative to this question was sustained by the Association in general session.

CIRCULAR AMPUTATION—CUP-SHAPED STUMP—STUMP TREATED AS AN OPEN WOUND.

A paper upon this subject was presented and read by Prof. **Link**, of Indiana. The advantages claimed for this mode of operation and subsequent treatment of the stump consisted in freedom from suppuration, absence of pain, and a comparatively short period for the healing process to be completed.

Section on Obstetrics.

Dr. **W. W. Byford**, of Chicago, Chairman.

Dr. **S. C. Busey**, of Washington, Secretary.

The following papers were read before this Section:

On Pessaries. By Dr. John Morris, of Baltimore.

Retroversion of the Uterus during Pregnancy. By Dr. A. S. Heaton.

Phlebitis following the Hypodermic Injection of Ergot in the Treatment of a Fibrous Tumor of the Uterus. By Dr. Allen, of Massachusetts.

Three Cases of Myo-Fibromata treated with Ergot. By Dr. J. H. Thompson, of Washington, D. C.

Normal Standard of Women for Propagation. By Dr. Allen, of Massachusetts.

On a Peculiar Disease of Infancy called Pigmentation. By Dr. Wright, of Ohio.

Congenital Occlusion and Dilatation of Lymph Channels. By Dr. S. C. Busey, of Washington, D. C.

Report of the Chairman of the Section on Fibroid Tumors, read before the Association in general session. The report was discussed at some length by Drs. Sims, Atlee, Byford, and others.

Of the above papers the last two were referred to the Committee on Publication. The remainder were referred back to their authors. Several papers were presented which were not permitted to be read. The Section was upon the alert with reference to papers which came before it as second-hand matter.

Section on State Medicine and Public Hygiene.

Dr. H. I. Bowditch, of Boston, Mass., Chairman.

Dr. H. B. Baker, of Lansing, Mich., Secretary.

The following papers were read before this Section:

Floating Hospitals. By Dr. Wm. F. Thoms, New York.

Hemlock Poisoning. By Dr. A. N. Bell, Brooklyn.

Report upon the Climatology and Diseases of Nebraska. By Dr. James H. Peabody, of Omaha.

Diseases of Minnesota and the Northwest. By Dr. D. W. Hand, of St. Paul.

Dr. Bowditch exhibited and explained diagrams illustrating the apparent influence of cloudy days upon the proportion of deaths from consumption, during a series of years from 1810 to 1867, inclusive.

Report of certain Papers and Correspondence of the Chairman, relative to the Work of the Section, and the Establishment of a National Board of Health. By Dr. H. B. Baker, Michigan.

A Partial Report upon Ventilation.

Climatology and Sanitary Report of Florida. By Dr. John P. Wall, Tampa, Fla.

Correspondence.

ERIE COUNTY MEDICAL SOCIETY AND PRELIMINARY EDUCATION.

To the Editor of the Medical Record.

Dear Sir:—Your editorial of April 17th on Preliminary Education seems well timed and suggestive.

You will be glad to hear that the inertia of our profession in regard to this important matter is not quite as profound as you suppose—that the earnest efforts of the reformers in our National Association and State Society have not been fruitless.

For four years there has been a systematic and sustained effort in our Erie County Medical Society to faithfully execute our by-laws in this matter, and we can now claim "the preliminary examination of students of medicine" in our Society to be a fact.

The obstacles we have had to overcome were those you would surmise—lethargy of the many, and covert opposition of the few. The move which finally aroused the Society from its indifference and convinced the few of the inexpediency of further opposition, was taken at our annual meeting in January last, when the Primary Board preferred charges of knowing, repeated, and wilful violation of our by-laws against a prominent member of our faculty and Society, in the admission of students to his office at various times during the last three years without the primary examination.

The discussion which grew out of this brought the subject in all its bearings thoroughly before the Society, and although the resolution introduced by another member of the faculty, and adopted by the Society, was one of diplomatic indefiniteness as a resolution of censure, and a good example of the difference between principle and policy, yet it plainly committed the Society to the enforcement of this preliminary examination.

In conclusion, allow me to suggest a thought in this connection.

The laws regulating the practice of medicine, and the charters of our various medical schools, all recognize that the study of medicine has a definite commencement, a prescribed course, and a fixed termination; that to become a legally practising physician, one must begin the study of medicine by receiving the preliminary certificate of the censors, continue it for three years with a legally practising physician, graduate from an incorporated medical school, and unite with an incorporated county medical society.

You will observe that three out of four of these legal steps are under the control of our county societies.

For the last three years the only students who have legally begun the study of medicine in this State are those who have been certified by the State or County Censor, and as the power to grant the degree of Doctor of Medicine which is bestowed upon our medical schools is not absolute, but always conditional, and as one of these conditions is, "that applicants shall have studied medicine for three years with a legally practising physician," it follows that degrees granted to students who have studied in an illegal way, who began the study of medicine in this State during the last three years, without the preliminary examination, have been granted contrary to law, and do not entitle the holders to "all the rights and privileges of the practice of physic and surgery." Is not this an important matter?

And is not the day near at hand when applicants for admission to county societies will be obliged to show that they have legally begun, conducted, and ended the study of medicine.

In general terms, the college will supply as poor material as the county societies will admit.

Let the societies unite in the declaration that they will accept of nothing that falls short of the legal requirements, and the colleges will find it expedient to comply with the demand. H. R. Hopkins, M.D.

Buffalo, N. Y.

THE VALUE OF SPECTRAL ANALYSIS.

To the Editor of the Medical Record.

Sir:—Sickness has prevented me from noticing Dr. Piffard's parting assertions in The Record, April 3, 1875, "that I have systematically and persistently misquoted him, myself, and the authorities to whom I had referred in support of my views."

The readers of The Record will have no difficulty to satisfy themselves that these assertions are utterly reckless and absolutely without foundation.

In my original lecture, see Record, October 15, 1875, which Dr. P. undertook to criticise, I stated "that sun-lines invisible under ordinary circumstances can be made *evident* at both the red and violet parts of the spectrum." Dr. P. copied the word "evident" in his first criticism, November 16, 1874. He must therefore been aware of the precise word used. In my reply January 30, 1875, in quoting the above sentence, by a typographical error, the word "evidently" was printed.

The favorable notice in Virchow's *Jarhresbericht*, wherein the correctness and completeness of my views on spectral analysis in pathology and physiology are honorably recognized, *is a tribute to an American student* which loses none of its importance on account of Dr. P.'s attempt to treat it disrespectfully.

S. Watermann.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 9th to May 15th, 1875.

Keeney, C. C., Surgeon.—During absence of the Medical Director of the Department to perform his duties. S. O. 40, Department of California, April 29, 1875.

Frantz, J. H., Surgeon.—Relieved from duty at Columbia, S. C., and to comply with S. O. 73, c. s., A. G. O. S. O. 59, c. s., Department of the South.

Gibson, J. R., Assistant Surgeon.—When relieved by Assistant Surgeon DeWitt, to comply with S. O. 73, c. s., A. G. O. S. O. 59, c. s., Department of the South.

Baily, J. C., Surgeon.—Assigned to duty at Post of Columbia, S. C. S. O. 59, Department of the South, May 6, 1875.

Heizmann, C. L., Assistant Surgeon.—Leave of absence extended 3 months. S. O. 89, A. G. O., May 12, 1875.

DeWitt, C., Assistant Surgeon.—Assigned to duty at Charleston, S. C. S. O. 59, c. s., Department of the South.

Paulding, H. O., Assistant Surgeon.—Assigned to duty at Fort Abraham Lincoln, D. T. S. O. 78, Department of Dakota, May 6, 1875.

Finley, J. A., Assistant Surgeon.—Assigned to duty at Cantonment on the North Fork of the Red River, Texas. S. O. 67, Department of the Missouri, May 5, 1875.

DeLoffre, A. A., Assistant Surgeon.—When relieved by Assistant Surgeon Finley, assigned to duty at Fort Larned, Kansas. S. O. 67. c. s., Department of the Missouri.

Maus, L. M., Assistant Surgeon.—Assigned to duty at Frankfort, Kentucky. S. O. 59, c. s., Department of the South.

Leeuwenhoek.—A committee has been formed at Delft, in Holland, to make arrangements for the celebration, on September 8th, of the second centenary anniversary of the discovery of microscopic animals by Leeuwenhoek, a native of the town. It is intended to render the occasion especially interesting by the exhibition of the microscopes which the distinguished naturalist made, and of letters and memorials of him. The committee are also endeavoring to raise a fund for the purpose of founding a gold medal, to be awarded under the name of the Leeuwenhoek medal, every tenth year, to the Dutchman or foreigner who shall have done most for the advancement of microscopical science. The award is to be made by the Royal Academy of Sciences at Amsterdam.

Medical Items and News.

U. S. Marine Hospital Service.—Dr. J. M. Woodworth, Supervising Surgeon-General, U. S. Marine Hospital Service, has gone to San Francisco, Cal., to formally open the new pavilion hospital at that port.

The following changes in the assignment to duty of officers in this service, have been made:

Surgeon F. W. Reilly, transferred from Philadelphia and Baltimore to Cincinnati, Ohio.

Surgeon Orsamus Smith, transferred from New Orleans to Louisville, Ky.

Surgeon P. H. Bailhache, transferred from Louisville, Ky., to the Supervising Surgeon-General's office at Washington.

Surgeon John Vansant (passed the Board of Examining Surgeons April 30, 1875, and appointed into the Medical Corps of the Service May 8), assigned to duty at New Orleans.

Assistant-Surgeon Samuel Houston, assigned to duty at Baltimore, and Georgetown, D. C.

Assistant-Surgeon Henry E. Muhlenberg, Jr., transferred from New York for temporary duty at Boston.

Assistant-Surgeon W. H. Hutton (passed the Board of Examining Surgeons April 30, 1875, and appointed into the Medical Corps of the Service May 8), assigned to duty at New York.

Dr. Mary Putnam-Jacobi has lately received from the Medical Faculty of Paris, a bronze medal (second class) for her inaugural thesis on "Neutral Fat and Fatty Acids." The members of the committee making the award for the session of 1870–71 (which was the time when the thesis was written) were MM. Wurtz, Tardieu, Depaul, Sappey, Dolbeau, Vulpian, Verneuil, Axenfeld, Gubler, and Daremberg.

Of three hundred others, thirty-eight were entitled to a special examination for medals. Of these seven received the silver medal, fourteen the bronze, while the remainder were honorably mentioned.

The Fifth Annual Report of Saint Mary's Free Hospital for Children, at 407 West Thirty-fourth street, shows that ninety-four patients were treated for one hundred and four diseases, at an average cost per patient of about $67, exclusive of donations, and a mortality of twelve and one-half per cent. The supporters of the institution are making an effort to purchase the property at present occupied by them.

Dr. Bouchut, of Paris, has brought down upon himself the maledictions of the Parisian clergy, who declare that his recently published articles on hypnotism contain heretical sentiments. Their further publication in the *Journal Officiel* has been, in consequence, suspended.

The Baron de Waldeck, of Paris, well known for his studies of Central American antiquities, celebrated his one hundred and ninth birthday in March last.

Weekly Bulletin of Meetings of Societies.

Monday, May 24.—Medical Society of the County of New York.

Tuesday, May 25.—American Microscopical Society; Yorkville Medical Association.

Wednesday, May 26.—New York Pathological Society.

Thursday, May 27.—New York Medico-Legal Society; Brooklyn Pathological Section; Jersey City Pathological Society.

Friday, May 28.—Medical Library and Journal Association. Report on Dermatology: Dr. Geo. H. Fox.

Original Communications.

CONIUM: AND ITS USE IN DISEASES OF THE EYE.

By EDWARD CURTIS, A.M., M.D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, COLLEGE OF PHYSICIANS AND SURGEONS. NEW YORK; SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY.

[Read before the New York County Medical Society. April 26, 1875.]

Part II.

Now as to the cause of sea-sickness in hemlock-poisoning. As regards the part played by the eyes, there is not now, of course, any disturbance of the customary physical relation between the actual status of eyeballs and visual image, such as occurs when looking at the heaving sea. Hence, under hemlock, there should, unlike what obtains on the ocean, be no confusion whatever when the eyes are fixed. And such, it will be remembered, is exactly the clinical fact. But suppose the poisoned individual rashly looks about, thus calling into action the half paralyzed ocular muscles. There is still, it is true, no change in the usual correlation between the shifting of the retinal image and the actual movement of the eyes, but, what comes to the same thing in its effect on the brain, is that there *is* a disturbance now as between the status of the image and the *intended* or *anticipated* ocular movement; and this for the simple reason that now the *intended* and the *actual* motion imparted to the eyeballs, on attempting to turn them, no longer correspond. For when such attempt is made during the poisoning of hemlock, though the necessary motor *order* is issued in due form by the co-ordinating centre, yet from the poisoned state of the nerve-endings in the muscles, such order does not reach the muscular tissue in its full intensity. Hence the muscles, executing blindly only such instructions as they actually get, carry the eyes in the proper direction it is true, but not to the intended extent. In other words, the eye when turned, or rather *ordered* to be turned so as to bear on a given object, does not do so, but stops opposite a point a little short of it, as is fully realized by the experimenter. But that means, that now a conscious order for a definite movement of the eyeballs, does *not* produce the hitherto accustomed change of position of the retinal image. In other words the habitual sensori-motor association, once more, between the consciousness of a motor command and the perception of the visual result, is now as much changed, though by a different agency, as in looking abroad from the deck of a rolling ship. In both cases the physiological trouble is that visual impressions are now inconsistent, according to the teaching of past experience, with the conscious or intended state of motion or rest of the eyeballs. But in the one case it is because the heaving sea shifts the retinal image *directly* in an unexpected way, while in the other case this happens *indirectly* through failure of the ocular muscles to execute in full a projected movement. In the one case the difficulty is an unnatural mobility of the objects viewed, in the other an undue immobility on the part of the eyes themselves. Hence at sea, where the cause of the disturbance is extraneous and always present, looking at the moving water should develop sickness whether the eyes are fixed or moved over the field, and so it does. But in hemlock-poisoning, where the cause is internal and has solely to do with the motor function, all confusion should be absent when the eyes are held steady, and appear only when they are moved: and such again is the observed fact.

When the hemlock paresis becomes general, giddiness follows any attempt to walk or make almost any decided muscular effort, even if the eyes be shut; and the explanation is again the same. The conscious orders from the volitional centre and the receipts of results through the muscular sense no longer bear the customary relation, because the muscles do not execute the command exactly as originally issued. An order to the leg to step forward twenty-four inches may be followed by a stride of only eighteen; and one to the muscles of the trunk to bear up against a ten-pound side-lurch of the whole frame, results in a resistance to only eight pounds pressure, whence of course the body totters. This curious failure of the muscles to execute in full a given order is no fancy picture, but one that can be experimentally verified. Thus while under the influence of hemlock, as already described, I went to attach a gummed label to the little vial from which I had partaken. Picking up the label, I without any thought made the usual motion to carry it to my tongue for the purpose of moistening it, but instead of accomplishing that intention the *hand* actually made the movement required in mid-air, some three inches short of its mark, and I was then obliged to do what seemed subjectively equivalent to willing the hand to go as far as half way down the throat, in order to, actually, bring the fingers to the tongue. Proceeding then to the manœuvre of sticking the label upon the bottle, precisely the same circumstance happened over again.

Comparing now this matter of keeping the balance when under hemlock and when on ship, the difference in the cause of the trouble in the two cases is just this: The landlubber, walking on a rolling deck, goes to plant his foot on a given spot, and lo! the spot is not there,—it has swayed out of place; while, when the hemlock-experimenter attempts the same, lo now it is the *foot* that is not there, for it has been erroneously set down somewhere else than on the spot intended. The physiological resultant is obviously the same, and the same cerebral confusion provoking sea-sickness occurs in both cases for a common reason.

Turning now to the therapeutics of hemlock, the obvious use of the drug is to neutralize spasm or enforce muscular rest by establishing a certain degree of temporary paresis, and thus, secondarily, to remove morbid symptoms due to spasm or great motor restlessness. The field of action for such therapeusis is plainly a wide one, and, as is well known, conium has been a good deal used of late for such purposes. But it is not my intention to discuss all the applications of the remedy, and I will only say, on the general subject of hemlock-therapeutics, that to do any good the drug must be given so as to produce some degree of its peculiar physiological effects. One would expect, considering the short duration of the influence, that the relief obtained through the medicine would be correspondingly brief. But though this is very often the case, the rule is not invariable. For it is a well-known therapeutic fact that a morbid symptom, when forcibly crushed, as it were, by some neurotic, does not always immediately recur, after the drug has let up its grip. And just this thing may happen, as I have myself observed, in the medicinal use of hemlock. A spasm quenched by conium-paresis has remained relieved many hours after all other conscious influence of the drug had vanished.

But my sole object in this part of the paper is to call attention to a particular use of hemlock which I do not think is accorded the importance it would seem to deserve. I refer to its employment as a means of combating the distressing "blepharospasm" that accompanies many acute inflammations of the cornea, conjunctiva, and sometimes the iris. Of course there is no need to discuss the affection itself; it is common enough, and all know that though itself a mere consequence of the inflammation, it yet reacts on the main disease, aggravating its intensity and prolonging its duration. Here, then, is one of the instances where a therapeutic attack on what is purely a secondary disturbance, will indirectly, if successful, avail towards the cure of the primary disease. Now this blepharospasm is not, as its name would seem to import, simply a spasm of the orbicularis muscle. The third cranial nerve is evidently involved in the erethism, as is shown by the contracted pupil, the unnatural resistance of the iris to the action of atropine, even when not itself inflamed, and the uncontrollable rolling of the eyeball upwards on the least attempt to separate the lids. It is probable, I think, that all the ocular muscles may be involved, but there is no way of proving this.

This blepharospasm is well known to be often exceedingly obstinate in yielding to treatment, and there is, therefore, here a genuine field for trial of new remedies. And *hemlock* naturally suggests itself in this connection; first, from the fact that it is a powerful and at the same time simple motor paralyzer in general, and secondly, because the ocular muscles, which are to a considerable extent concerned in the disorder under consideration, happen at the same time to be specially subject to the physiological influence of this drug. It is, therefore, not surprising that so shrewd an observer as Harley should early point out this application of conium; and in his book on the "Old Vegetable Neurotics" he records a very considerable success with it in the blepharospasm depending on ophthalmic inflammations. I accordingly determined to try it myself, but not wishing to bias my judgment by inconclusive experiments, I waited till I should meet a case, severe and protracted in itself, occurring in an adult who could intelligently record his own sensations, and who could be taken into hospital, so as to be treated with full doses under the control and observation of the resident surgeon. Such a case presented itself last January, in my service at the Eye Infirmary.

A young man, of twenty-three years, an old sufferer from chronic conjunctivitis, was struck on the left eye by a bit of ice last September. Violent inflammation followed, lasting some weeks. He completely recovered, as he states, but after prolonged exposure to cold, one day in January, a sudden relapse occurred, and a week later the patient presented himself at the clinic for the first time. His was then a typical case of the highest grade of blepharospasm. Both eyes were spasmodically held shut, and not only could the patient not separate the lids in the least by any voluntary effort, but it was next to impossible for the surgeon to do the same by anything short of extreme violence. As usual in such cases there were also excessive intolerance of light and constant severe pain, the latter almost wholly depriving the sufferer of sleep. An examination of the affected eye, made with extreme difficulty, showed a sharp iritis, with the free edge of the iris already glued fast to the lens at almost all points, and a large focus of diffuse inflammation of the cornea near its centre. The man was at once admitted as a house-patient with a view to trying the hemlock. But as I did not feel justified in withholding atropine from a case of iritis, I waited awhile before beginning with conium, in order to eliminate the effects due to atropine and the other usual measures, from the intended observation. Accordingly, the patient was at first treated in the customary way by local instillations of a strong atropia solution, warm applications, rest in bed in a dark chamber, and such general measures as were appropriate, including hypodermics of morphine to relieve, if possible, the pain and spasm and procure sleep. But five days of this treatment resulted in no benefit whatever. The persistent spasm and pain remained as bad as ever, morphine giving no relief; the inflammatory process showed no sign of abating, nor did the adhesions between the iris and lens yield in the least to atropine. There was here then a good foundation for a reliable observation on what hemlock might do. Accordingly, at the end of the five days, I requested our resident surgeon, Dr. W. O. Moore, while continuing the previous treatment, to give the patient daily one or two full doses of Squibb's fluid extract of conium fruit, which I had previously tested on my own person to be an active preparation. The initial dose was to be forty minims by measure, and subsequent doses were to be regulated by the effects, the drug to be pushed if necessary to its full physiological limits. The object of giving isolated large doses, instead of keeping up a steady influence by frequent small ones, was so that the same day might offer for comparison the state of things when the system was under hemlock and when wholly free from its influence. Dr. Moore entered into the undertaking with interest, and I wish to express my acknowledgments to him for his skill in carrying out the general idea, and for the full and careful notes of the results of the treatment, from which the following abstract is compiled:—

The first dose was forty minims at 11.20 A.M., January 27. In half an hour the spasm broke, with decided abatement of the pain, and the patient for the first time in twelve days could open his eyes of his own will. At the same time the physiological effects of the drug were seen in giddiness and staggering on trying to walk. The man shortly dropped into a doze, as was natural after relief from the severe pain that had been destroying his rest for so long, but awoke at 4 P.M., *i.e.*, four hours and a half since taking the hemlock, with all conscious physiological effects of the drug gone, and the spasm and accompanying pain back again as bad as ever. As usual he slept poorly during the night on account of the constant pain.

The next day thirty minims only were given at 10.15 A.M. In half an hour again there followed the same prompt relief of the spasm, and with it the pain, as on the day before, but with less pronounced general paresis, as would be expected from the smaller dose. All effect having passed off in a couple of hours, Dr. Moore gave a second dose of thirty minims at 12.30. Swiftly again the same relief was experienced, but now with more general physiological effects than with the dose just previous. This being the day of my attendance at the Infirmary, I saw the patient at 3.30 P.M., just three hours after his last taking of the hemlock. By that time the general paresis, with the accompanying giddiness, etc., had all passed away, but now was observed the interesting point already spoken of, that the *therapeutic* effect persisted. Indeed, I never saw a more complete reversal of a clinical picture than that presented by the patient now, as compared with his condition when I had last seen him, just before the hemlock treatment was begun. Instead of shrinking and cowering from the light with eyes spasmodically shut, and the orbicularis quivering and tense like the biceps of a gymnast, on trying to force the lids apart,

—instead of this aspect, the patient to my amazement got out of bed and boldly walked to the full open window, with head erect and eyes naturally and easily open. Moreover, now I noticed that the inflammatory process itself had begun to abate, and that the iris, for the first time, was yielding to the atropine. More or less good effect seemed to last through the night—or at any rate the patient slept better than any night previous.

The next day—the third of the hemlock treatment—only a single thirty-minim dose was given, but it now produced no effect.

The following day forty minims were given, and in forty minutes the usual physiological effects were developed, with relief of the nervous symptoms as before, though not so marked as on the day when two thirty-minim doses were taken. Still a good night's rest followed.

The next, the fifth day, the same dose was administered with the same result, but on the following, the sixth, Dr. Moore withheld the hemlock altogether, as a controlling experiment. Prompt relapse of all the symptoms followed; more pain and spasm than at any time since the conium treatment had been begun; pupils again contracting despite atropine; vascular injection of the globe more marked. Patient also had a bad night from severe pain. The hemlock was thereupon resumed in single forty-mimim doses daily, and produced the customary relief of the spasm and pain, but, what is interesting, without now causing giddiness or staggering. Possibly by this time the patient had from practice acquired his *hemlock-legs*, if an analogous condition to "sea-legs" can be established under the habitual use of the drug. After three days the dose was increased to fifty and then to sixty minims, and a few days later, the nervous symptoms being well under control, the systematic use of the medicine was discontinued. But as the inflammatory process in the iris and cornea still hung on with great obstinacy, and as there was a possible suspicion of an old syphilitic taint in the man, iodide of potassium in full dose was given at a venture, and with the happiest result. The disease began at once to recede, and by the thirteenth of March the eye was perfectly well, a single point of attachment of the iris to the lens only remaining. On that day a little surgical operation for separating this adhesion was performed, but was unfortunately followed by a sharp return of the inflammation with a renewal of all the previous symptoms. Again the patient was at first treated without hemlock, and now with iodide of potassium along with the local measures. But nothing availed, and so after eight days the conium dosing was renewed, beginning with forty minims, increased after a few days to a fluid drachm once or twice daily. Precisely the same results followed as before: the spasm and pain would be relieved for hours at a time, and on the second day of the hemlock treatment, the iris, which had again resisted atropine, began to yield once more. Six days later the pupil was fully dilated and the iritis rapidly subsiding. Conium was given *pro re natâ* for two weeks more, the patient often calling for it of his own accord, when all need for it having disappeared it was discontinued. During this period the fluid extracts of two other makers were tried, but neither of them, even in one hundred minim doses, produced the slightest effect, physiological or therapeutic.

At the February meeting of the New York Ophthalmological Society I reported this case so far as it had then progressed, and called the attention of the members to this use of conium in the blepharospasm of ocular inflammations. Several proposed to try it, but I know of the results of only three cases, as follows: Dr. O. D. Pomeroy, at the next meeting of the Society, reported the case of a girl, nine years old, with granular lids and ulcerated cornea, accompanied by intense blepharospasm and photophobia. He gave ten drops of Squibb's extract, while the patient remained in the clinic room. In twenty-five minutes the child could partially open the eyes, and after the lapse of forty, opened them fully and naturally, and faced the light without flinching. And what is exceedingly interesting, there is reported to have been no return of the spasm from that moment, though but the single small dose was given. Next, Dr. Loring tried conium in a case of severe and persistent blepharospasm, accompanying granular lids and pannus, which for two weeks had resisted all other treatment. I am indebted to Dr. Moore again for the notes of this case. Two twenty-minim doses were given the first day, and an hour after taking the second the eyes were voluntarily opened for the first time since admission to the infirmary, and the pain greatly abated. The next day almost entire relief of the nervous symptoms followed a single forty-minim dose, and for five days more similar daily doses were given, during which the acute symptoms of the disease steadily receded. The drug was then no longer urgently called for, and as it produced in this case distressing giddiness was gladly discontinued. Lastly, as is now so well known, the hemlock was tried in Brooklyn, in a case of general facial spasm, involving the orbicularis, but as would seem from the patient's own memorandum, even his self-administered fatal dose had no influence to quell the disorder. But as, if I understand the case aright, this was not the usual blepharospasm of inflammatory ophthalmic disease, it is not properly comparable to the foregoing.

The only other case in which I myself have given hemlock a fair trial, was that of a young girl, eighteen years old, again a sufferer from intense blepharospasm consequent on an acute outburst of granular lids and pannus. Here, as in my first case, I took the patient into the infirmary and for a week tried the usual remedies, but without the slightest benefit. Hemlock was then administered, first in twenty, then thirty, and finally forty-minim doses of Squibb's fluid extract of the fruit, once or twice daily. But here the drug gave only very moderate relief from the spasm and pain, and there was no abatement of the inflammatory process itself. Moreover, the patient was so distressed with sea-sickness following its use—once actually vomiting—that she begged it might be withheld. Accordingly, after eight days' trial, I abandoned the medicine and performed the so-called canthoplastic operation; that is, splitting the outer canthus and stitching the conjunctiva to the edges of the skin wound. Prompt benefit followed; the patient immediately began to improve in all respects, and indeed made one of those marvellously quick recoveries that sometimes happen after this simple little procedure.

To sum up, of course I am aware that nothing definite is proved by so few cases as I am able to present to-night, especially where, as in this instance, the results are discrepant. Nor should I have thought of bringing this matter up at all at the present time, had it not been for the fear that the recent singular accident in the use of hemlock might unduly prejudice the profession against it. But I think that taking these cases with the results of Harley's original experience, it is shown that while conium may practically fail entirely, as in my last case, still its success in others warrants an extended and impartial trial of the drug in the very common and distressing condition under consideration.

HALLUX VALGUS, EXSECTION OF METATARSAL BONE; MORTIFICATION AND DEATH.

WITH SOME REMARKS ON ESMARCH'S BANDAGE.

By J. H. POOLEY, M.D.,

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Mr. F——. a farmer by occupation, a hale, hearty-looking man, who says he is 75 years of age, but certainly looks ten years younger than this, and who has always been healthy, consulted me at my office on March 9th, 1875. He has the deformity known as Hallux Valgus, or abduction of the great toe on both feet, which has existed for thirty years or more, and which he attributes, correctly no doubt, to the practice of wearing tight boots when he was a younger man. On the left foot the great toe underrides the lesser toes, on the right it overrides them; on each, the great toe is bent or abducted to as nearly a right angle as possible, and the consequent projection of the head of the metatarsal bone is occupied by a large swelling or bunion.

Three years ago the wheel of a loaded ox-cart passed over the deformed joint of the left foot, hurting it very severely, and disabling him for a short time. From that time to this he has had more or less trouble from it, but nothing severe until within the last three months, since which he has been almost constantly confined to the house, and in spite of a variety of treatment it has lately been getting rapidly worse.

Upon inspection I found the site of the deformed metatarso-phalangeal articulation occupied by a large, much inflamed bunion—it was red, hot, tender, and painful, and in its centre was a small circular opening, from which a slight amount of thin discharge issued, and from which projected some shreds of sloughy tough tissue, probably ligamentous. On introducing a probe I thought I could detect bare bone, but was not quite sure of this; he bore motion of the joint pretty well, but winced considerably when the joint-surfaces were pressed together. I advised exsection of the head of the metatarsal bone, as the means most likely to afford him complete and permanent relief.

He instantly acceded to the proposition, being glad of any prospect of relief from his sufferings, which had been protracted and severe, and the 11th of March was fixed upon for me to go to his house, about four miles from my own, and perform the operation.

Accordingly on the afternoon of March 11th I operated, assisted by Dr. Nordquist of Tuckahoe, the family physician, and Dr. F. S. Grant of Yonkers.

Ether was administered, and Esmarch's bandage applied in the usual way, which answered its purpose perfectly, as not a drop of blood was seen during the whole operation. The diseased articulation was much more inflamed than when I had seen it two days before, probably as the result of the unwonted exercise of it in coming over to see me; it was exquisitely tender and painful, so much so as to have completely deprived him of sleep the night before, despite hot poultices, and repeated doses of McMunn's elixir of opium. An incision was made over the most prominent part of the swelling down to the bone, when the head of the metatarsal bone was found to be in a carious condition.

The soft parts were separated from the bone, the ligament except on the side toward the next phalanx divided, and the joint opened; a chain saw was then passed around the neck of the bone, and it was sawn through, the bone was then twisted inwards and the remaining ligament divided, which completed the operation. I have been thus particular in describing the operation, because although other methods have been practised, it seems to me this is the best. It is a very simple affair, and yet may be made rather embarrassing and tedious by want of attention to details, which are therefore not unimportant. The chain saw is preferable to any other instrument for the division of the bone, any other form of saw almost necessarily lacerates the soft parts to some extent, and bone cutters are very apt to splinter the bone. It seems to me also that there is an obvious advantage in dividing the bone before attempting the almost inaccessible ligament on the side toward the adjacent phalanx, as the command thus given of the bone, and the twisting and turning of it materially facilitates this last step of the operation.

After the completion of the operation a compress and bandage were applied, and warm water dressing ordered, with an opiate at night if necessary.

March 12th. Patient passed a comfortable night, only taking his anodyne once, and sleeping more than for many nights previously; wound looks well, to continue warm water.

March 14th, Sunday. On Friday night, the date of my last visit, some sloughing of the wound began to be noticed, which continued increasing all day Saturday, and when I saw him the whole wound was in a condition of mortification which extended up on to the instep, or about the upper end of the metatarsal bone, and also threatened the great toe. Warm solution of carbolic acid, which had been substituted by Dr. Nordquist for the simple water, was continued, quinine and iron also prescribed. His pulse was only 80 and full, tongue slightly coated; there was a large painful swelling of the right elbow, no rigors, afternoon fever, some delirium, no pain except in the elbow, which was red, hot, and slightly tense.

March 16th. Mortification has spread, involving the great toe, which was completely dead, and was removed by simply cutting through some sloughing tendons with the scissors.

The other toes look dubious, but there is a distinct line of demarkation showing itself on the instep. Quinine and iron which he had been taking every four hours, to be given every three, and one minim of carbolic acid to be added to each dose.

General condition of the patient very much the same as at last date, has had no chill, pulse 88, elbow still swollen and painful, though not perceptibly more so than at last report.

March 17th. Mortification has involved all the toes, and spread over the sole of the foot and outer portion of the dorsum. Patient weaker, more delirious, pulse 100, tongue heavily coated, not dry, no chill, elbow more swollen, is not willing to take as much nourishment as desirable. Give tonic and carbolic acid every two hours, and push the stimulants.

March 18th. Going on from bad to worse, gangrene spreading from the sole of the foot up the calf, nearly as high as the knee. Patient weak, pulse 90, temperature 101½, no chill, but sweats a good deal, and is stupid and dozing the greater part of the time; when awake, constantly delirious.

Opinion expressed that all operative interference is out of the question, and that he will scarcely survive more than twenty-four hours. He died the following day, March 19th, at 10½ A.M. I must mention that in the intervals between my visits he has been most assiduously attended by Dr. Nordquist.

After much and serious reflection, I cannot avoid the conclusion that the disastrous result of this case is due, in part at least, to the application of the

Esmarch's bandage. A fear that sloughing might arise in many instances from the complete exsanguification of the tissues by this new appliance, has been felt and expressed in several quarters, and would seem theoretically to be well founded, but I do not know that it has been verified by the publication of any such instance as the present.

I do not leave out of sight this patient's advanced age, but making all due allowances for that, and in view of his fine physique, and perfect health, it would not have deterred any one from the performance of a much severer operation. I cannot entirely acquit the elastic bandage; and I have been led in view of this distressing case to look at my former experience with the new method in a rather different light from that in which I had formerly regarded it. I stated in some remarks which I made at a meeting of the New York County Medical Society, November 27th, 1874, that I had used Esmarch's method in six major amputations, without any bad results *attributable to the method:* in this statement I was perfectly sincere, and so thought most fully at the time, and ever since until the occurrence of the present case, but am not so sure of it now.

In one of the cases then referred to there was some sloughing of the flaps, which was attributed at the time to the double fact that the amputation was done for a railroad accident, which often inflicts injury upon the tissues beyond what is immediately apparent, and also that the patient was a most wretched broken-down sot. Since then I have performed a Syme's amputation at the ankle with Esmarch's bandage, in which case the flaps sloughed; this was attributed to the existence of unhealthy tissue in the neighborhood, and we all know that the flap in this operation has rather a precarious existence at the best; the same patient recovered perfectly and rapidly, from a reamputation of the leg, also with Esmarch.

These experiences, in the light of the present case, have somewhat shaken my faith in the perfect safety of the method, and lead me to sound a note, not of alarm, but of caution, on this subject. Of course the method is not to be discarded on account of two or three, or even a score of unfortunate cases; but the question is, must we not discount a little from the idea of its almost universal applicability?

It would seem that there may be danger in its use in old persons, and more so in operations on the toes and feet than in the limb higher up, and nearer the centre of circulation, or in the upper extremity, and in vitiated and broken-down constitutions. And the danger in operations on the feet may be increased by the fact that as a rule they take up more time in their performance, and so deprive the parts bandaged of their nutritious fluid too long for safety. I am in no position to assert anything, even were I so disposed, but I throw out these doubts and questions for the consideration of others.

Time, which tries all things, will certainly bring us at last to the true estimation of this, as of every other novelty, and in the meanwhile I take the liberty of asking that if any one knows of similar experiences, they will favor the profession with them, that all may compare notes and see where we stand. The favorable side has been abundantly presented; if there is an unfavorable side, let us have that too. In closing I would record my firm persuasion that even should we be obliged to admit that there are many cases where this new method is dangerous, there still remain enough where it is undoubtedly applicable and valuable, to make it one of the most brilliant acquisitions of modern surgery.

Original Lectures.

ON PULMONARY PHTHISIS.

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Lecture II.

After considering the subject of scrofulous inflammation, our next step is to inquire into the nature of tubercles.

What are tubercles? Instead of answering this question directly, I will state to you the different lesions which have been called tubercles. The first systematic classification and nomenclature of tubercles was elaborated by Laennec in the early years of the present century, and the names which he adopted are still in use. He held that there is only one tuberculous matter, and that this is an accidental, not an inflammatory product. He admitted of only one kind of pulmonary phthisis, the tubercular. He classed the tubercles of the lungs into two species, the isolated and the infiltrated tubercles. Of the isolated tubercles, he distinguished four varieties—miliary, crude, granular, and encysted tubercles. Of these, the granular, miliary, and crude tubercles are only successive stages of the same growth. The granular tubercles constitute the earliest stage of the new growth. They are of the size of a millet-seed, round, of uniform size, are almost transparent, and are scattered through the lungs in great numbers. The miliary tubercles are the next stage. They are somewhat larger, of gray color, and semi-transparent. Their size varies from that of a millet-seed to a hemp-seed. They grow by intus-susception, and thus become united in groups. Before this union, however, a small, yellowish, opaque speck appears in the centre of each tubercle; this speck gradually enlarges, and finally involves the whole tubercle. After a certain time, the conversion of the whole into this yellow matter is completed, and the group then constitutes only a single homogeneous mass of a whitish yellow color, and of a texture somewhat less compact and moister than that of cartilage; it is then said to constitute crude tubercle.

Encysted tubercles are very rare. They are the result of inflammatory processes, causing thickening and softening around miliary tubercles.

The infiltrated tubercles he divides into two varieties, the gray and the yellow.

(1.) The gray infiltration is formed around excavations. We sometimes also find it existing primitively in cases where no tubercles exist, but this is rare. In other cases, we find tuberculous masses of a large size in the first or semi-transparent stage, without any previous development of miliary tubercles. These masses are dense, humid, impermeable to air, and of a gray color. They may after a time become yellow and soften.

(2.) The yellow infiltration is found in yellow masses of variable size. Sometimes it occupies a small portion of lung, sometimes nearly all of it. After a certain time, it is prone to soften, liquefy, and form caverns.

Laennec's descriptions were taken entirely from the gross appearance in the lungs, but in 1844 Lebert applied the microscope to the study of the lesions described by Laennec. He endeavored to find some anatomical element characteristic of tubercle. His studies were principally directed to the yellow and infiltrated tubercle. Here he discovered the constant existence of certain bodies which he named "tubercle corpuscles." These he described as pale, spherical, irregular, or angular bodies, which are neither nuclei nor cells, and measure .005–.007 mm. in diameter. This seemed to complete the doctrine of phthisis and of tubercle. All phthisis was tubercular. The tubercles were not inflammatory products, but a new growth, and could be recognized by the presence of specific tubercle corpuscles. They occurred either as isolated nodules, or as larger infiltrations; in either case, they were first gray and then cheesy.

Such a simple and definite theory of the lesions of phthisis could not fail to find adherents; and as the cheesy tubercles are always the most conspicuous, all cheesy masses found in the lungs were generally called tubercular.

But convincing as this theory appeared, it found powerful opponents at the very outset. Broussais (1772–1838) taught that all the lesions described by Laennec as tubercular, were really the products of inflammation. Andral used the word tubercular as synonymous with cheesy, and from observing that pus may become cheesy, he regarded all tubercles as produced by the thickening of an exuded inflammatory product. The gray granulations he held not to be tubercles. Reinhardt, in 1847, taught that Lebert's tubercle corpuscles were nothing but shrivelled pus cells. He held that all the lesions of phthisis, whether isolated or infiltrated, gray or yellow, were always produced by inflammation, and were nothing but a form of pneumonia.

At about the same time, Virchow followed Reinhardt in teaching that all the infiltrated and cheesy lesions were not tubercular, but products of pneumonia, but he reserved the name of tubercle for the miliary granulations and regarded them as new growths of structure similar to that of the lymphatic glands.

Niemeyer applied these pathological studies to clinical teaching, and taught that phthisis is not necessarily tubercular, but that in many cases all the lesions are due to chronic pneumonia.

The views of Virchow and of Niemeyer rapidly gained ground, and the name of tubercle was more and more restricted to the miliary granulations, while all the infiltrated and cheesy masses were ascribed to chronic inflammation. More study, however, was given to the minute structure of the miliary tubercles. It was found that they consisted not merely of a mass of small cells, but of a fibrous reticulum, of large, polygonal nucleated cells, of small round cells, and of giant cells.

But the tide of medical opinion is now once more turning. In 1872 Buhl, of Munich, published his memoir on the lungs. With him most of the lesions of phthisis depend upon what he calls desquamative pneumonia. In desquamative pneumonia there is, he says, first an infiltration of the walls of the alveoli with a plastic fluid, at the same time a production of epithelial cells in the cavities of the alveoli, then, if the process continues, there is a production of new fibrous tissue between the air-cells and fatty degeneration of the new epithelial cells within them. As a variety of desquamative pneumonia, and produced from it, he describes cheesy pneumonia. In other words, he gives the name of desquamative pneumonia to a combination of the two conditions which I have described to you under the names of interstitial pneumonia and intra-alveolar chronic pneumonia.

Miliary tubercles he describes in the usual way, but deduces them from the same desquamative pneumonia. Miliary tuberculosis of the lungs is, he says, a desquamative pneumonia, differing from the ordinary form only in this, that among the proliferating cells of the alveolar walls giant cells appear. The tubercle is thus first formed within the cavity of an air-vesicle, at a later period there is a local infection of the alveolar wall beneath, and miliary tubercles are developed there also. The lesions of chronic phthisis he ascribes partly to tubercles, partly to chronic desquamative and cheesy pneumonia, and partly to peribronchitis. Acute miliary tuberculosis is, he says, only a general pneumonia, accompanied by the formation of tubercles. The name of tuberculous pneumonia may be used as synonymous with cheesy pneumonia, for it is an inflammation which is necessarily accompanied with the formation of tubercles. He distinguishes, therefore, acute miliary tuberculosis as infectious phthisis, and chronic tuberculous or cheesy pneumonia as inflammatory phthisis.

In 1873 Wilson Fox read before the Pathological Society of London a paper on tubercle. He asserted that, in both acute miliary tuberculosis and chronic phthisis, in the small nodules and the large infiltrations, the same anatomical elements exist, namely, a reticulated connective tissue stroma enclosing rounded cells. This tissue, which he calls adenoid tissue, he considers the essential element of tubercles. For him, therefore, all phthisis is tubercular.

In 1875 Rindfleisch published a short monograph on tuberculosis.

He defines tubercle to be a small, circumscribed form of scrofulous inflammation. The miliary tubercles are first formed at the points where the terminal bronchioles are continuous with the acini of the lung. A tuberculous infiltration of all the angles and projections which exist at the junctions of the terminal bronchioles and the lung acini is the first act of the morbid change, and leads to the formation of circumscribed nodules or tubercular granulations.

The appearance of these granulations is preceded and accompanied by catarrhal inflammation of the bronchi.

The next step is a tubercular infiltration of the walls of the bronchi, an ulceration of their mucous membrane, and a chronic, scrofulous, cheesy pneumonia. The infiltration of the bronchi is effected by a propagation of the tuberculosis in the peribronchial lymphatic vessels, and is accompanied by a production of new connective tissue. The scrofulous pneumonia he describes in the same way as Buhl does his desquamative pneumonia. He deduces from it in the same way the new interstitial fibrous tissue, and the filling of the air-vesicles with epithelial cells.

He believes that the invasion of miliary tubercles is like that of malignant tumors—1. A local scrofulous inflammation; 2. Tuberculosis of the lymphatic glands; 3. General tuberculosis.

He defines scrofula as follows: "A peculiar course of all the inflammatory processes which occur in certain persons, is the characteristic mark of a constitutional disease which we call scrofula."

You may perhaps have been confused by hearing all these different views. Let us consider for a moment how much progress has been made in our knowledge of tubercles and of phthisis.

Laennec first clearly described and grouped together all the lesions of acute and chronic phthisis. It is not surprising that, without the help of the microscope, he should have regarded all these lesions as accidental products of the same nature.

Lebert, in describing specific tubercular corpuscles.

committed an error, pardonable in the early days of microscopy, and long since renounced by himself.

Reinhardt and Virchow drew attention to the distinction between acute miliary tuberculosis and the lesions of chronic phthisis. They also demonstrated that cheesy degeneration is not peculiar to tubercle, but occurs in any inflammatory product.

By the labors of Langhaus. Wagner, Schüppel, and others, we know what is the minute structure of miliary tubercle.

Finally, Buhl, Wilson, Fox, and Rindfleisch, although in different ways, have all labored to prove that the anatomy of miliary tubercles, and of part of the lesions of phthisis, is essentially the same; that the lesions of chronic phthisis are made up of a combination of tubercular and inflammatory products, and that tuberculosis is itself a species of inflammation.

By the labors of all these different investigators we have, therefore, made substantial progress, if not in theory, certainly in facts. The most valuable result of all their studies has been, not any complete theory which will explain all the phenomena of tuberculosis, but a more exact knowledge of what these lesions are. And this seems to me to be a matter of much more consequence. To ascertain the exact structure of the lesions of acute and of chronic phthisis is a much more profitable task than to speculate concerning their origin and relationships.

Let us then consider for ourselves what lesions exist in the lungs of persons who have died of phthisis. We cannot help seeing that, clinically, acute miliary tuberculosis is an entirely different disease from chronic phthisis.

Here, for example, is a case of acute tuberculosis: Adolph W., 54, German, was admitted to the Roosevelt Hospital Nov. 20, 1874. Three weeks before his admission he was attacked with chilliness, headache, fever, pain in the epigastrium, vomiting, and epistasis. His bowels were constipated until six days ago, when he took purgative medicine; since that time they have been loose. During the last week he has had a slight cough, with scanty expectoration. During the last four days he has been delirious.

When admitted to the hospital he was pale and weak, tongue coated, bowels loose, and was supposed to have typhoid fever. Nov. 26 there was partial paralysis of the right arm and leg.

Nov. 28, died.

At the autopsy the only lesions were large numbers of miliary tubercles in the pia mater, in the lungs, in the liver, in the spleen, and in the kidneys.

Here was a patient sick only for four weeks, with marked constitutional disturbance, rapid sinking into a typhoid condition, and with no symptoms of lung disease. At the autopsy, the brain, lungs, liver, spleen, and kidneys were found to be studded with small, grayish granulations—miliary tubercles. Nothing could seem to give a clearer picture of a general rather than a local disease.

If we examine these little granulations, such as were found in this man's viscera, what do we find? We find that they are small, rounded nodules, composed of a basement substance and cells. The basement substance is partly reticulated connective tissue, partly a diffuse, finely granular substance. The cells are, 1st, one or two large, rounded, finely granular masses, containing several nuclei, situated sometimes at the centre, sometimes near the periphery of the nodules; 2d. large, polygonal, nucleated cells, looking like epithelial cells; 3d, small, round, and oval cells, like the cells found in any new or inflamed connective tissue. In some of these nodules the central portions were changed into a finely granular structureless mass; in some the stroma was so abundant as to look like fibrous tissue. The same reticulated connective tissue was found, not in nodules, but as an irregular infiltration between the air-vesicles. Within the adjacent air-vesicles we find products of inflammation—fibrine and epithelial cells. In the bronchi there were evidences of catarrhal inflammation.

I have given you in this case a distinct clinical history, and a distinct set of lesions. That there is a disease characterized by such symptoms and such lesions is agreed by all; it is called acute miliary tubercles by all; and nearly all give a description of the lesions substantially the same as that which I have given you. So much then you may regard as settled. The points yet undecided are as follows:

1. Is such a miliary tuberculosis always due to infection from a pre-existing cheesy focus?
2. Are these miliary tubercles an inflammatory product, or a new growth?
3. Are they identical in character with any of the lesions of chronic phthisis?
4. Where and from what are these miliary tubercles developed? Are they formed within the air-cells, or in their walls, or in the walls of the blood-vessels, or the bronchi, or within the lymphatics? What are the giant cells, and the epithelial-looking cells contained in the tubercles, and from what are they formed?

All these are questions still open for study and discussion, and concerning which great differences of opinion exist.

Now let us turn to quite a different picture—the symptoms and lesions of chronic phthisis. With the clinical history of this disease we are only too familiar. It begins either insidiously, or with an acute attack, and then runs a course lasting for months or years. Sometimes the patients recover; sometimes they recover for a time, and then are again attacked; sometimes the progress of the disease is steady and continuous. The symptoms point to a local affection of the lungs. Cough, expectoration, pain in the chest, dyspnœa, hæmoptysis, fever, emaciation, and loss of strength, with the physical signs of lesions in the lungs, are the regular attendants of the disease.

After death we find marked changes in the lungs. The pleura is thickened and adherent. The bronchi exhibit the lesions of chronic inflammation. The lung tissue contains bands, patches, and nodules, looking like fibrous tissue; cheesy nodules of various sizes; red, gray, or gelatinous hepatization of large or small portions of lung; frequently cavities which usually communicate with the bronchi. According to the extent and relative amount of these lesions, the lungs will vary in their appearance. In some cases the cheesy masses, in others the fibrous tissue, in others the red or gray hepatization, in others the cavities will attract our attention. In New York the prevailing form seems to be that in which fibrous tissue, cavities, and small fibrous and cheesy nodules are the predominant lesion.

If we examine these lesions with the microscope what do we find? We find three things. The air-cells are filled with epithelial cells and fibrine, and these cells and fibrine may undergo cheesy degeneration. Between the air-cells is reticulated and fibrillated connective tissue; portions of this have the same appearance as the miliary tubercles, the same stroma, the same large and small cells, and the same giant cells. But they also resemble in their structure the new connective tissue produced by inflammation in other organs. We find similar tissue in white swelling of the knee-joint, in cirrhosis of the liver, in chronic diffuse nephritis, in the granulation tissue of chronic ulcers of the skin, and in other situations. While, therefore, we must admit that in chronic phthisis one of the regular lesions is a diffuse production of new tissue similar to the tissue of miliary tubercles, we must also admit that it is a tissue similar to that produced in other chronic inflammations. Whether tubercular or not, it certainly seems to be a product of chronic inflammation, and to this conclusion tend the studies of all observers.

We may, therefore, leave as open questions: 1. What is the relationship between acute tuberculosis and chronic phthisis? 2. Are the lesions of chronic phthisis simply inflammatory, or is the inflammation accompanied by the production of tubercles? 3. Are the chronic inflammatory processes preceded by, accompanied with, followed by, or are they the same thing as miliary tubercles?

But, in spite of all these undecided questions, we may rest fairly on these conclusions: 1. There is a disease called acute tuberculosis, with the symptoms of an acute general disease, and as lesions the production of miliary tubercles, not merely in the lungs, but throughout the body.

2. There is an affection of the lungs with the symptoms and lesions of chronic inflammation of those organs. These lesions consist essentially in the formation of new reticulated connective tissue between the air-vesicles, and of epithelium and fibrine within them. The new tissue between the air-cells resembles the tissue of miliary tubercles. Both the new tissue between the air-vesicles, and the epithelium and fibrine within them, may undergo cheesy degeneration.

Progress of Medical Science.

Large Doses of Bromide of Potassium in the Treatment of Epilepsy.—Very favorable results are reported from the use of this drug by Dr. Otto, who relates a series of thirty-three severe cases of epilepsy. Most of them had seizures daily, or oftener, and twenty-nine had also some form of mental disorder. In fourteen patients the attacks ceased from the day the medicine was given, and in most of them did not recur for eight months. In seventeen patients the attacks became less frequent, ceasing entirely in three of them when larger doses were given. In the rest the attacks were less frequent, intervals of six months occurring. One patient died six weeks after beginning treatment; in two, attacks recurred after the remedy was left off. The mental condition of all was much improved. Of the whole number four remained free from attacks, even after the medicine was stopped. Most of the patients easily bore 185 grains daily, and our author advises against exceeding 230 grains. In recent cases he gives about 150 grains daily, divided into four doses, adding a little opium if it produces diarrhœa. The long continuance of this quantity, however, or a gradually increased dose, produced disturbances in the sensorium and motor paralyses, from which, however, the patients recovered completely when the remedy was discontinued. When used for two or three weeks skin lesions were always manifested, comprising acne, pustules resembling furuncles, and ultimately quite an extensive superficial ulceration of the skin. These, then, and the nervous lesions are the indications for discontinuing or diminishing the doses, for the disturbances of the alimentary canal can be overcome by giving it in sufficiently diluted solutions. The author considers the bromide the efficient ingredient of the salt, as bromide of sodium and hydrobromic acid acted in the same way, while other potash preparations were without influence upon the disease. He believes that it acts by removing the irritability of the central ganglia and the peripheral nerves, and so averts the seizures.—*Archiv für Psychiatrie. Memorabilien*, April 8, 1875.

Purpura Hemorrhagica Treated by Hypodermic Injection of Ergotine.—Dr. Andrew K. Minich relates an interesting case of dangerous purpura hemorrhagica, occurring pretty suddenly in a child seven years old, who had previously been healthy. The case was treated successfully with hypodermic injections of ergotine. When the patient was first seen the condition was quite alarming; blood was issuing freely from nearly all the mucous orifices of the body, and there was bloody vomiting and profuse epistaxis: the parotid glands were infiltrated and swollen with blood, while large purple ecchymoses appeared underneath the skin. A grain of ergotine was injected hypodermically, and repeated twice within 24 hours, with the effect of completely arresting the hemorrhage, and in a few days the child was perfectly well.

The pathology of this malady is somewhat uncertain. Some have been disposed to attribute it to fatty degeneration of the capillary vessels. But the prompt action of ergot upon the affection, whatever its nature may be, could scarcely be explained on the above supposition. Minich suggests *vaso-motor paralysis*. Ergot produces *vaso-motor spasm* ; thus "we have explained to us somewhat satisfactorily how it is that ergot will cure this affection."—*Phila. Med. Times*, May 8th, 1875.

Corpora Cavernosa in the Nose.—In the Boston *Medical and Surgical Journal* for April 29, Dr. Henry J. Bigelow calls attention to the existence of an erectile tissue upon the turbinated bones of the nose. This tissue is designated as "turbinated corpora cavernosa," not a particularly fortunate name, however, since we are not informed that the corpora cavernosa are turbinated, but simply that they are situated on turbinated bones. Some of the phenomena observed in acute nasal catarrh (popularly known as "cold in the head") are supposed to be owing to the erection of these cavernous bodies. The article is prefaced by six fine plates. Two of them are from Kohlrausch, a portion of whose minute description of the erectile tissue in the nose is quoted.

The Simultaneous Occurrence of Valvular Lesions and Phthisis.—Dr. Ernst Frommolt, of Dresden, at the close of a statistical article, illustrated by a series of cases, thus sums up his conclusions on this subject: 1. The simultaneous occurrence of chronic valvular disease of the heart and phthisis is not by any means so rare as has hitherto been assumed. 2. Affections of the left arterial orifice are rather more frequently complicated with phthisis than those of the left venous orifice, although the difference is not marked. 3. Simultaneous affections of several of the orifices of the heart never, or very seldom, appear to be associated with phthisis.—*Archiv der Heilkunde*, April, 1875.

The *American Medical Weekly* has clothed itself in a new garb, which is doubtless an indication of the success that has attended the enterprise. The editorial columns have been marked, since the start, by peculiar vigor and soundness on medical topics, while the letters from abroad have been particularly bright and instructive. The London correspondent is said to be one of the editors of the *Lancet*, and the news, therefore, comes from head-quarters.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 29, 1875.

THE PRESBYTERIAN HOSPITAL AFFAIR.

The communication to the Trustees and Managers of the Presbyterian Hospital, which we publish in another column, brings up to the surface of discussion an important question concerning the rights of attending physicians and surgeons. For a long time the settlement of the proper relations of the managers of our public charities to their medical staff has seemed inevitable, but it has been delayed only for the want of a good opportunity which a test case would afford. Such an opportunity has at length occurred, which forces from the profession some expression of opinion in regard to its rights and privileges as servants of these institutions.

It appears from the circular before us that four reputable members of the medical staff of the hospital in question have been virtually dismissed, and that without any assignable cause. This is certainly a very high-handed proceeding, and deserves a thorough and impartial investigation, not only in the interests of the medical staff of the institution, but of the institution itself. It is absurd to suppose that any body of men such as that composing the board of trustees of this hospital should be guilty of any such action without what they supposed to be some good cause. This is the least that can be said to explain their course. We do not pretend to discuss their particular reason, whether the expelled members were in fault or not, but we do question the right of the managers to depose them as they have done without preferring any charge, without giving a chance for a defence.

If this right is allowed to go unquestioned, a very dangerous precedent will be established. No member of the staff will hereafter be safe in his position from one year to the other. In other words, the trustees will hold the good reputation of any medical man, who is so unfortunate as to place himself in their power, in the hollow of their hands, and will be ready to damage such a reputation whenever, what they consider to be a sufficient excuse for so doing, presents itself.

It is, after all, not altogether the fault of the trustees of our public institutions that such a state of things exists. The profession is in no small degree responsible for it. The issue has been invited from the time medical men played the part of toadies to the appointing power. They have persuaded the trustees of hospitals and dispensaries that the positions on the medical staff were so valuable that they would do anything to gain them, in the first place, and retain them, in the second place. Under the circumstances, we can hardly blame these boards of hospital management for entertaining a becoming contempt for the profession at large, and applicants for hospital appointments in particular. We have forced them to believe that whatever they may do to any members of a hospital staff—slight them, insult them, dismiss them, or disgrace them—there are plenty of eager aspirants on file to fill the vacancies thus created. The truth of this is strikingly exemplified in the case of the Presbyterian Hospital. We do not mean it to be inferred that the new appointees abetted, directly or indirectly, the action of the managers by filling the vacancies of these four gentlemen; but we do say that, under the present circumstances, they occupy a far from pleasant position before the profession. Every one of the new members of the staff are gentlemen well qualified to hold the positions; but by continuing to do so they virtually support the trustees in an act of gross injustice to their deposed brethren.

The request in the circular referred to—to make the cause of dismissal of the gentlemen a subject of trial and a matter of publicity—appeals to every notion of fairness, policy, and ordinary justice. Signed by so many representative medical men, it has a significance which no board of trustees can afford to ignore. We very much regret that a body of honorable men, such as is the board of trustees of the hospital, should have so far forgotten its obligations as to allow any opportunity for questioning its motives, or for suspecting it of any other than plain dealing and gentlemanly treatment to men who were, by virtue of their position, in every way entitled to such considerations.

VIVISECTION.

A bill has been introduced into the House of Lords, having for its object the restriction of vivisection to those cases in which it can be proved to be absolutely necessary. This, after all, is quite a reasonable way of striking a happy mean between the two extremes. The bill provides that physiological experiments shall only be performed upon animals at certain places which shall be duly registered and subject to inspection. This will prevent any wanton destruction of animal life by incapable but enthusiastic experimenters, and will limit the practice of vivisection to experts. On this point there cannot be much division of opinion. While its tendency is to diminish the sacrifice of animal life, it at the same time affords the best of opportunities for those researches in experimental physiology which are of peculiar value to scientific medicine.

On this general question of vivisection Sir Thomas Watson speaks for the profession of Great Britain, and his sentiments will have a sympathetic response on this side of the Atlantic. In a recent article in the *Contemporary Review*, he maintains that no one is justified in making any painful experiment on a living creature who does not possess the skill, judgment, intelligence, and previous knowledge necessary to render the experiment successful and instructive.

This, it strikes us, is a very satisfactory way of settling the difference between unintentional cruelty and scientific necessity, and should quiet the opposition of the different societies for the prevention of cruelty to animals which of late has been so unreasonable, bitter, and unjust.

THE NEW BUILDING FOR THE ACADEMY.

The inauguration of the new building of the New York Academy of Medicine was an event in the history of the profession of this city not soon to be forgotten. The idea of a home for the profession of this city has long been cherished by this association, and now that their expectations have been realized in the possession of a handsomely furnished mansion, it is a matter of a great deal of congratulation. The presentation of portraits of the founders of the institution was an impressive endorsement of the labors of those who have been so untiring in their devotion to the interests of the Academy. We congratulate the Committee of Ways and Means on the results of their labors, and look upon the event of the medical tea-party as an inauguration of a revolution of medical affairs in this city. The Academy, by the efforts of its own membership, has secured by personal subscription its elegant home, and generously hopes that it may be used as a centre around which all the medical interests of this metropolis may gather. We doubt not that the profession at large will be willing to second any such endeavor.

MEDICAL ADVERTISING.

The question of our correspondent, "Medicus," in regard to publication in a daily paper of the protest against the managers of the Presbyterian Hospital has a pertinent bearing upon the matter of medical advertising. We cannot believe that the publication was sanctioned by the gentlemen signing the document, but that it was the result of a mistaken policy and short-sighted enthusiasm of some one of the interested parties. Such documents are always out of place in a secular paper, and always tend to lower the profession in the estimation of the public.

MEDICAL LEGISLATION IN PENNSYLVANIA.

Another instance of the absurdity of medical legislation is afforded in the law recently passed by the Pennsylvania legislature. After specifying the essential qualifications for a practitioner of medicine, which are well enough so far as they go, exceptions are made in favor of those who have practised a certain time without a diploma; and of the numerous advertising quacks who are allowed to practise by the payment of two hundred dollars for a license.

In the eye of the law of Pennsylvania, if an incompetent man has practised a certain time he is entitled to protection equally with a well-educated medical gentleman, while the payment of two hundred dollars annually is a sufficient offset for a medical diploma. We should like to know what our medical brethren of Pennsylvania have gained by this law.

Reviews and Notices of Books.

Cyclopædia of the Practice of Medicine. Vol. II. Acute Infectious Diseases. By Dr. H. Von Ziemssen. American Editor, Dr. A. H. Buck. New York: W. Wood & Co.

The subject of the acute infectious diseases is concluded in this volume, which includes Varicella, Measles, Rubeola, Scarlet Fever, Small-Pox, Erysipelas, Miliary Fever, Dengue, Influenza, Hay Fever, Malarial Diseases, and Epidemic Cerebro-Spinal Meningitis. The translators are Drs. James C. White, and Edward Wigglesworth, Jr., of Boston; Dr. Edward W. Schauffler, of Kansas City; and Drs. A. Brayton Ball, J. Haven Emerson, George H. Fox, Edward Frankel, and John C. Jay, Jr., of New York.

The first article is on Varicella, by Professor Thomas, of Leipsic. One of the points of especial interest to the reader will naturally be the position taken by the writer on the relation between this disease and variola, and his opinions will therefore coincide with those that are generally held both in this country and in Europe, when he opposes Hebra and his followers, who claim an identity for the two diseases. The distinction he makes is as follows: In varicella there is no increase in the temperature before the eruption; in variola it is marked for several days; varicella has vesicles and variola pustules; varicella is a disease of children; variola, of adults; vaccination affords no protection against varicella, but does against variola; variola sometimes follows almost immediately upon an attack of varicella, and varicella follows sometimes upon variola; while either one of the diseases once incurred affords almost entire protection against another attack.

Of the two articles, Measles, and Rubeola, or German measles, the latter deserves attentive reading, as the writer elevates it to the character of a specific disease, distinguished, on the one hand, from the non-specific form of roseola, and on the other from measles and scarlet fever. This the author shows by the relation of certain epidemics, where the characteristics he describes were well marked. The exanthem is not at all like that of scarlet fever, while it differs from measles in that the maculæ are smaller, rounder, and paler, while there is absence of the bluish-red tint.

Scarlet fever is the most exhaustive article in the book, covering 167 pages. It embodies the results of great literary industry, and bristles with an array of facts that is positively marvellous. The author advocates the symptomatic treatment as being the only rational one. The disease cannot be cut short or interrupted in its natural course, while it leads to recovery, provided the fever and local symptoms remain within certain bounds. Hydro-therapeutics are recommended in severe cases, as his experience has shown that they will moderate the fever, though they will not limit the duration of the disease or prevent complications.

Dr. Zuelzer, director of the Charité Hospital in Berlin, has contributed a number of interesting articles. Among the most noteworthy seems to be Erysipelas. As for the etiology of this disease, he calls attention to the numerous instances where the evidence points to the transference of the disease from one infected patient to another, and also enumerates instances where the disease arises idiopathically, as we term it, where none of the common causes of the disease could be inferred. A rather important point in the etiology of the disease he has neglected to mention. It is referred to by Steinberg in his report on the efficiency of the military hospitals in Berlin during the last war. That writer mentions that in one instance erysipelas broke out simultaneously at a number of detached hospitals of the city, and the occurrence was coincident with a sudden change in the temperature. A similar observation is also recorded by the same writer as having occurred during the war of 1866.

Miliary fever, or "the English sweating sickness," is stated to be a specific disease that has prevailed in epidemic form for hundreds of years, disappearing at times and again appearing, being at times quite mild, and at others a very fatal scourge. He therefore differs from Hebra and some other authorities, who believe that the miliaria are accidental complications, due to excessive sweating in the various febrile affections, or are an artificial production. The two stages of the disease, that of sweating and of eruption, are carefully described.

Professor Hertz, of Amsterdam, contributes the article on Malarial Fever, which he has had an excellent opportunity of studying on the northern shores of Europe. We hardly expect that any foreigner can teach us much on this subject, but the reader will find in the article much that is both suggestive and instructive.

Dr. Von Ziemssen concludes the volume with an article on Cerebro-Spinal Meningitis. After giving a careful résumé of the subject, he observes that, as far as treatment is concerned, we have not yet learned all about the disease. We may favorably affect its course, but it is still a matter of question whether we can lower the death-rate.

Antiphlogistics, anti-pyretics, and narcotics are recommended, and of the latter he says that morphine may be regarded as one of the most indispensable remedies.

This volume well sustains the reputation of its predecessor, and displays, like it, a pretty thorough winnowing of all the foreign literature as well as of our own.

* * *

Dr. Bell Pettigrew, Lecturer on Physiology at Surgeon's Hall, Edinburgh, and lately a candidate for the Professorship of Physiology in the University of Edinburgh, has been awarded the Goddard Prize of the French Academy of Sciences, for his original anatomical and physiological memoir, and, in consequence, becomes a Laureate of the Institute of France.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 26, 1875.

Dr. H. B. Sands, President, in the Chair.

Discussion on Dr. Curtis' Paper (see page 369).

Dr. E. R. Squibb, upon invitation, remarked, with regard to the discrepancy in the effects obtained by the administration of conium—and the same is true regarding the action of most neurotics—that when a temporary action is attained by a therapeutical agent, which is evanescent in its effect, the recurrence of the disease which takes place is *minus* a certain amount of habit, and although the substance administered may not be curative, its influence upon disease may be very important. He was of the opinion that, to a certain extent, we may theorize in this way with regard to the effect of quinine, in the cure of intermittent fevers, for example, and certainly so with regard to the effect of nitrite of amyl in the treatment of epilepsy. Dr. Kempster had informed him that, since the introduction of nitrite of amyl in the treatment of epilepsy, the epileptics in his wards, in the insane asylum at Oshkosh, Wis., have changed entirely. That is, whenever the aura is present the nitrite of amyl is given with the very first indication of its presence, and the attack is either aborted or prevented; and the subsequent recurrence of the epileptic attacks has been minus something of the habit.

This remark was thrown out as an observation upon the result that may be obtained by the administration of a remedy whose effect is evanescent. By aborting the habitual recurrence of epileptic attacks the patient may be very greatly benefited.

It was in this way, he thought, that we might account for the changed condition seen in the recurrence of blepharo spasms, and the same is probably true of those cases in which Dr. Harley has realized benefit by the use of this remedy, and sometimes cure has taken place. Reference is made to those cases where we have simple spasmodic action of the muscles.

Another point in the paper impressed him, and that was the very ingenious explanation of the effects of conium with regard to a similitude they give with sea-sickness.

We have most of the inebriating effects of conium in alcohol, but not often either giddiness or nausea. There is a giddiness, but not the giddiness described, and it is not accompanied by nausea. The giddiness and sickness of sea-sickness and from the effects of conium are of a peculiar nature, and the giddiness of alcohol is not similar to either.

With regard to the lack of uniformity in the strength of preparations of conium, he explained by saying that the conium fruit when green is much more potent in the presence of the active principle than when ripe. The analogy is very close to that of opium, for if an incision is made in a ripe poppy but little opium will be obtained, while in an unripe poppy, if an incision is made, an exudation takes place which contains the morphia elements. There is something in the growth of many of these plants which renders them very sensitive, and in order that a preparation may be made from them which shall have a uniform therapeutical strength, it is essential that they are gathered when the plant has attained a proper age. It was his impression that animals may browse upon the hemlock plant when it is very young without any injurious effects, and also when the plants are old with the same immunity. The plant is also consumed as "greens" in some countries. Another requisite for making reliable preparations of conium is, to have the fruit collected and dried by skilled hands. Dr. Manlius Smith, of Syracuse, has, for several years, collected the fruit which he uses in making his preparations. The fruit must be collected when it is just ripe enough, and not over-ripe, and then dried with skill. When this is done, the only skill requisite is that which enables the pharmaceutist to obtain the active principle of the fruit without the aid of heat. The variations in the strength of the English *succus conii* arise from the fact that the plants have been collected in a wet season of the year in one case, and in a dry season in the other, the water present in the plant in the wet season accounting for the difference. The *succi* preparation can never be very reliable. The only safe plan that can be followed for obtaining a preparation of conium which possesses a uniform strength is to study the character of the plant, so that the fruit can be collected at the proper season, just as the plant has reached its maximum activity, and then dried to such an extent as the atmosphere alone will allow it to dry, and no farther. The plants will then keep, and there is no great tendency in them to deteriorate, if kept in a dry state. His experience, now extending over nearly ten years, had led him to believe that the active principle is comparatively permanent in the plant when it is carefully dried and properly stored. With the introduction of moisture it deteriorates very rapidly, the same as does ergot and other articles which contain medicinal properties that are easily liberated.

Dr. C. R. Agnew remarked that perhaps a few words with regard to the case of hemlock poisoning which had lately occurred in Brooklyn might be proper at this time, and especially with the view of throwing some light upon the nature of that case. The case was one of blepharo-facial spasm, which commenced some ten or twelve years ago in a slight neurosis. Motility in the eye gave the patient double vision, and there was probably slight paralysis of the internal rectus muscle. At that time there was slight spasm of the orbicular muscle, which was an annoyance, but not sufficient to justify any special treatment. After the lapse of eight or nine years, while crossing Broadway, he was knocked down by a truck and received an injury over the orbital ridge of the left eye, and then this extreme violent spasm began. He had seen blepharo-facial spasms in several instances, but had never seen a case where the grimaces were so intense as in this man. The eyes would remain closed for an hour or two, with the muscles of the face twitching in every possible direction. About eighteen months ago, at his suggestion, the case was seen by Brown-Séquard, who was of the opinion that there was present disease of cerebral origin, and that the patient could be benefited by treatment. To this he submitted at once, and was placed under the influence of several remedies, as morphine, belladonna, calabar bean, strychnia, atropine, white-hot iron applied over the brow and over the spine, and all without benefit. The doctor then divided the supra-orbital nerves, first one and then the other; he then made an incision down upon the left supra-orbital nerve and removed a portion, and subsequently removed a portion of right supra-orbital; and then a portion of the left trochlear, and afterwards a portion of the right, but all these operations, performed for the relief of the patient and done with the fidelity and ability which justly recommend the operator, were followed by little or no effect upon the condition present. He then returned, at the suggestion of Dr. Brown-Séquard, to his care. He now performed the operation of canthoplasty upon the left side, with a very slightly favorable effect, but it was only transient. It was then, at the suggestion of Prof. Curtis, made through Dr. Webster, that an attempt was made to bring the patient under the influence of conium. The preparation used was made from the leaves of the plant, and was administered in forty and sixty drop doses until 180 drops were taken between the hours of 10 A.M. and 11.45 A.M., but without producing any effect whatever.

He then went to Brooklyn, which of course required more or less of muscular effort, and later in the afternoon a preparation of conium made from the seeds was administered, and with the result now well known. The only point he wished to refer to especially was that the trouble unquestionably had a cerebral origin, because there was no inflammation of the eye or of any of its appendages. It is true that, after the blepharo-facial spasm had continued for some months, the conjunctiva of the lids and eyeball became more or less inflamed, as it always does under such conditions, but it was a secondary effect, and perhaps might be looked upon as reacting and becoming a cause, but it was not so in the beginning.

Dr. Squibb referred to the use of conium in other conditions than that which had been chiefly alluded to, and where, perhaps, it plays a more potent rôle as a remedial agent. He had seen a number of cases of cancer where the pain was relieved in a remarkable degree by dipping a piece of flannel or muslin in a reliable preparation of conium, exposing it to the air until the alcohol has passed off, and then placing it over the irritable, painful cancerous sore. Applied in this manner it affords relief so promptly as to leave no doubt but that it is due to the influence of the drug. When failure to obtain relief attended the use of the drug in this manner, he had attributed it to the fact that a poor preparation had been used. There is a preparation of conium, known as the New Haven preparation, which is supposed to be prepared by sun-drying the expressed juice of the plant, and then adding sufficient alcohol to preserve it. For a long time this was a preparation recognized for its reliability, but after a while it became a matter of speculative enterprise, and its reputation for reliability has been very nearly lost. In cases, therefore, where this preparation has failed to afford relief when applied locally, he had suggested the method of applying the drug which has just been alluded to.

Belladonna may be used in the same manner, and a piece of flannel dipped in the fluid extract of this drug and applied to the surface makes one of the most efficient belladonna plasters that can be used. In mucous membrane irritation, such as bronchitis, in that slow, senile character which this affection often assumes, it may be frequently used with great success. There are many other diseases and conditions where the efficacy of conium has been long recognized, and are perhaps the fields where the more legitimate benefits of the drug may be realized. The use of conium for the relief of toxical spasms is one of later days.

Dr. Emerson mentioned a case of spasm affecting the left side of the body, involving the facial muscles, and there was present also, slight blepharo spasm. He had given this patient a drachm of the preparation of conium, made after the formula of the British Pharmacopœia, having first tested its value upon himself, but no effect was produced. The second dose administered was one drachm and a half, and the remedy was increased until the patient took five-drachm doses, and then the desired effect was produced. Four drachms modified the spasms somewhat, but they occurred again in about four hours; the dizziness, however, continued only about two hours. There was also muscular weakness and some sensation of nausea, and there was present another symptom which is uncommon, and that was hemorrhage. The menstrual flow, which had appeared at the time the first dose was administered, was very much increased, and the hemorrhagic tendency extended into the lungs, and she had hæmoptysis. The tendency to excessive hemorrhage was sufficient reason for stopping the remedy, and he would inquire of Dr. Curtis how this symptom was to be explained.

Dr. Curtis replied that he had never met the symptom of hemorrhage following the administration of conium, and was not able to give any explanation for it, unless there is occasioned more or less paralysis of the vaso-motor function, producing organic changes in the blood-vessels; but in that event we should have flushing of the face, and as that does not occur, it is not probable that this is the true explanation. Such occurrences may be merely accidental.

Dr. Emerson remarked that there was violent action of the heart and pain across the upper part of the chest after administering the largest doses.

Dr. Manlius Smith, being invited to speak, reported a case where the patient, an inmate of State prison, took by mistake a tablespoonful of a reliable fluid extract of conium. In about two hours the doctor was summoned to see him, and found upon arrival that the man was unable to articulate, unable to open his eyes, and was perfectly limp. He at once administered [illegible] of a grain of sulphate of strychnia hypodermically, and in about ten minutes he opened his eyes and talked so as to be understood. He was then raised upon his feet, but was unable to stand, and sank upon the floor. He was then carried to the hospital room and a mustard emetic was administered without producing much effect. He remained under the effects of the drug until the next day, about twenty-four hours after he had taken the dose, was sleepy, etc., but in the afternoon, four or six hours later, the effects had all disappeared. The case was mentioned chiefly for the purpose of calling attention to the hypodermic use of strychnia as an antidote in cases of conium poisoning.

Dr. Agnew called attention to another fact, namely, the comparative worthlessness of minim glasses sold in the shops. He had received two of these glasses from importers, who had supposed them to be standard, but he had found, upon testing them, that they varied six drops in their capacity below the twenty-five minim line. It is important to know that the minim glasses, both those which are imported and those manufactured in this country, are unreliable.

Correspondence.

MEDICAL ADVERTISING.

To the Editor of The Medical Record.

Sir,—I have read with pleasure your editorials on the subject of advertising doctors. I hope that you will continue them, and not fear to hold up to professional censure those of our brethren who seem to disregard the Code of Ethics. I would like to ask whether the advertising in the *Tribune* of the protest by sixty members of our profession against the recent action of the Board of Managers of the Presbyterian Hospital, be not a violation of the Code? Four of the physicians were dropped for cause, and the managers feel themselves fully justified in their conduct. The medical journals of this city, are the proper channels of communication with the profession, and not the *Tribune* newspaper. You must have observed that each of these sixty names were paraded before the public, with a title appended. Let us have your opinion in this matter.

Medicus.

WHISKEY AND SULPHATE OF MAGNESIA.

To the Editor of the Medical Record.

Sir:—Will you please inform me through The Record what reaction, if any, takes place, and what new substance is formed, if any, when you resort to the following experiment? Take of Epsom salts, 2 oz.; water, q. s. to dissolve the same; add 1 pint Bourbon whiskey. After the mixture stands for a few hours the bottle is filled with a complete jelly instead of a liquid. Please explain the phenomenon.

A Subscriber.

[The reaction you refer to is the normal one. Alcohol has the property of precipitating the sulphates, and in this case the precipitate has a gelatinous appearance from the fact that the sulphate of magnesia has the effect of taking up a large percentage of water in crystallizing. Under the microscope the gelatinous substance will be found composed of a mass of crystals of the sulphate of magnesia.—Ed.]

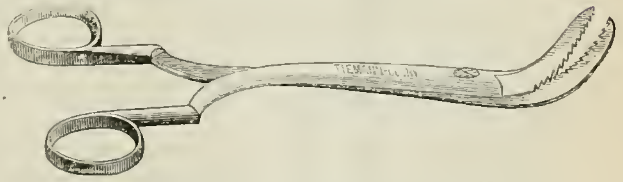
New Instruments.

A NEW INSTRUMENT FOR AMPUTATION OF THE CERVIX UTERI.

By C. FREDERICK CLARK, M.D.,

OF BROOKLYN.

For the purpose of amputating the cervix uteri, and at the same time divesting the operation of its great danger, hemorrhage, I had constructed for my use, by the Messrs. Tiemann, of New York, a pair of tooth-edged cutting scissors on the principle proposed by Dr. Richardson, of London, but so modified as to be available in uterine surgery.



The accompanying cut will sufficiently explain the instrument. The handle is curved on the flat so as to leave abundant space for working the blades while the speculum and tenaculum are in position, and the crossing of the blades in the handle renders the instrument easy of management, even when some forms of the bivalve speculum are used.

The cutting should be done slowly and firmly, thereby allowing each surface of the angular teeth to press on the tissues. If necessary, torsion may be used before fully closing the blades.

On the 9th of March I used the instrument to amputate the cervix, the case being one of conoid cervix, accompanied with dysmenorrhœa and sterility. The operation was performed without bilateral splitting of the cervix, and the stump was left to heal by granulation. *No hemorrhage* ensued, and the operation was in every way successful.

A tampon of cotton, moistened with a solution of carbolic acid and glycerine, was then applied to the wound, and, being removed the following day, showed a perfectly clean surface in process of healing.

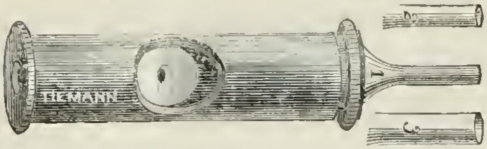
Injections of a solution of carbolic acid were continued for ten days, at the expiration of which time my patient had entirely recovered.

As I believe this is the first case in which amputation of the cervix has been performed by this method, in view of its efficiency in my own hands, I am pleased to subject it to the judgment of the profession.

306 Union Street.

HASSENSTEIN'S OTOSCOPE.

Improved by Geo. Tiemann & Co.



This instrument for examining the ear both with solar and artificial light consists of a brass table, the one extremity to hold alternately one of three different sizes of ear specula, 1, 2, 3, whilst the other is provided with a glass lens adjusted to proper focal distance for examination. An opening has been cut into the tube and a highly polished nickel plated mirror, with a central perforation, placed within, at an angle of 45°. From this mirror the rays of light are reflected on to the part to be examined, which will be exactly at the extremity of the respective speculum.

The original instrument was made of hard rubber, very clumsy and fragile. The present instruments are constructed by Messrs. Tiemann & Co. entirely of metal, the tube blackened like a telescope, the specula silver plated, white inside, highly polished outside. The instrument is very light, and yet very durable.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 16th to May 22d, 1875.

Hammond, J. F., Surgeon.—To report to the Commanding General, Mil. Division of the Atlantic, for duty as Attending Surgeon, relieving Surgeon Bill. S. O. 92, A. G. O., May 17, 1875.

Byrne, C. C., Surgeon.—Assigned to duty as Post-Surgeon at Fort Abraham Lincoln, D. T. S. O. 88, Department of Dakota, May 18, 1875.

Weeds, J. F., Surgeon.—When relieved by Surgeon Byrne, to comply with S. O. 75, c. s., A. G. O. S. O. 88, c. s., Department of Dakota.

Wolverton, W. D., Assistant Surgeon.—Assigned to duty at Fort Abercrombie, D. T. S. O. 87, Department of Dakota, May 15, 1875.

Knickerbocker, B., Assistant Surgeon.—Assigned to duty as Post Surgeon at Fort Colville, W. T. S. O. 58, Department of the Columbia, May 7, 1875.

Brown, J. M., Assistant Surgeon.—Leave of absence extended 23 days. S. O. 97, Mil. Division of the Atlantic, May 17, 1875.

Brooke, Jno., Assistant Surgeon.—Relieved from duty in Department of the Columbia, to proceed to Philadelphia, Pa., and, upon arrival, report by letter to the Surgeon-General. S. O. 92, c. s., A. G. O.

Kinsman, J. H., Assistant Surgeon.—Assigned to duty at Fort Ripley, Minn. S. O. 83, Department of Dakota, May 11, 1875.

Steinmetz, Wm. R., Assistant Surgeon.—Relieved from temporary duty at Fort McHenry, Md., to report to the President of the Army Medical Board, New York City, for examination for promotion, and, upon its completion, to the Commanding General, Department of the Missouri, for assignment to duty. S. O. 92, c. s., A. G. O.

Medical Items and News.

Dr. Montrose A. Pallen has been made "Professor of Gynæcology" in the Medical Department of the University of New York, in lieu of "Lecturer on the Surgical Diseases of Women."

The Presbyterian Hospital Affair.—The following communication regarding the recent trouble in the Presbyterian Hospital will sufficiently explain itself:—

New York, May 15, 1875.

To the Managers of the Presbyterian Hospital:

Gentlemen:—We, the undersigned Members of the Medical Profession in New York, have learned, with deep regret, the late action of your Board, whereby you have dismissed from your Hospital four Members of the Visiting Staff, without assigning any ground for such a course. So far as is known these gentlemen were fully competent for the positions which they held, and discharged their duties with diligence and skill.

We believe that you have failed to realize the full character of your action. In summarily discharging these gentlemen, you, in effect, proclaim your opinion that they are unfit for the positions which they held. By so doing you incur the responsibility of seriously injuring their reputation; and you have taken this grave step without preferring any charge, or assigning any reasons for so doing.

We believe you will admit that while you have acquired certain rights in assuming the position of Managers of a Hospital, you have also incurred certain obligations. While it is your right to appoint and dismiss the Medical Staff, it is also your duty to exercise this right for the best interests of the Hospital.

It is evidently your duty to obtain for the patients under your charge, the best medical and surgical skill which our profession affords. We can hardly believe that any physician or surgeon of reputation will serve in an institution from which he is liable to be dismissed without just grounds.

We believe, therefore, that, both as members of the medical profession and as citizens, we are justified in asking that you shall make public the reasons for your late action. If these gentlemen have in any way shown themselves unfit for their positions, let the facts be made known. If they have been discharged simply from caprice, they have a right to demand that this should be made as public as their dismissal.

We have the honor to be, very respectfully, your obedient servants—

Abram DuBois, M.D., Consulting Surg., N. Y. Eye and Ear Infirmary.

T. M. Markoe, M.D., Prof. Surgery, Coll. of Phys. and Surgeons.

Frank H. Hamilton, M.D., Surgeon to Bellevue Hospital.

H. B. Sands, M.D., Prof. of Anat., Coll. of Phys. and Surgeons.

James W. McLane, M.D., Adj. Prof. Obstet., Coll. Phys. and Surg.

Francis Delafield, M.D., Physician to Bellevue, etc.

John T. Metcalfe, M.D., Consulting Phys. to Roosevelt Hospital.

T. Gaillard Thomas, M.D., Prof. Obstet., Coll. Phys. and Surgeons.

Wm. H. Van Buren, M.D., Consulting Surgeon to Bellevue Hospital.

James R. Wood, M.D., Surgeon, Bellevue Hospital, etc.

Woolsey Johnson, M.D., Surgeon, N. Y. Eye and Ear Infirmary.

I. L. Little, M.D., Surgeon, St. Luke's Hospital.

Wm. H. Thomson, M.D., Physician, Bellevue and Roosevelt Hospitals.

Erskine Mason, M.D., Surgeon, Bellevue and Roosevelt Hospitals.

Austin Flint, M.D., Physician, Bellevue Hospital.

David Magie, M.D., Registrar, New York Hospital.

C. R. Agnew, M.D., Surgeon, Manhattan Eye and Ear Hospital.

Wm. T. Lusk, M.D., Prof. of Obstet., Bellevue Hospital Med. Coll.

D. B. St. John Roosa, Prof. of Eye and Ear, University of City of N. Y.

Thos. Addis Emmet, Surgeon, Woman's Hospital of State of N. Y.

Fordyce Barker, M.D., Obstet. Physician, Bellevue Hospital.

Henry C. Eno. M.D., Surgeon, New York Eye and Ear Infirmary.

Chas. P. Russell, M.D., Health Department.

Chas. E. Hackley, M.D., Physician to New York Hospital.

I. I. Hull, M.D., Physician to Nursery and Child's Hospital.

F. N. Otis, M.D.. Surgeon, Charity Hospital.

A. Jacobi, M.D., Physician to Mt. Sinai, Bellevue, and German Hospitals.

Robert Watts, M.D., Physician to Roosevelt and Charity Hospitals.

John G. Curtis, M.D., Lecturer Adjunct, Coll. of Phys. and Surgeons.

Fredk. R. Sturgis, Surgeon to Charity and Manhattan Eye and Ear Hospital.

Henry F. Walker, M.D., Physician to Bellevue Hospital.

W. M. Polk, M.D., Physician to Bellevue Hospital.

Thomas T. Sabine, M.D., Surgeon to St. Luke's Hospital, etc.

Hermann Althof, M.D., N. Y. Eye and Ear Infirmary and German Hospital.

F. P. Kinnicutt, M.D., Physician, Out-Door Dept., Bellevue.

Robt. F. Weir, M.D., Surgeon, Roosevelt Hospital.

Edw. G. Loring, M.D., Surgeon, N. Y. Eye and Ear Infirmary.

Andrew H. Smith, M.D., Physician, St. Luke's Hospital.

Bache M. Emmet, M.D., Asst. Surgeon, Woman's Hospital.

W. H. Draper, M.D., Physician to New York and Roosevelt Hospitals.

Monis J. Asch, M.D., Physician to Metropolitan Throat Hospital.

Henry D. Noyes, M.D., Surgeon to N. Y. Eye and Ear Infirmary.

Clinton Wagner, M.D., Physician, Metropolitan Throat Hospital.

J. L. Campbell, M.D., Physician, N. Y. Orphan Asylum.

Ernst Krackowizer, M.D., Surgeon, N. Y., Mt. Sinai, and German Hospitals.

J. P. P. White, M.D., Surgeon to Charity Hospital.

W. R. Gillette, M.D., Physician to Charity Hospital.

Alfred L. Loomis, M.D., Physician to Bellevue Hospital.

Edward G. Janeway, M.D., Physician to Bellevue Hospital.

Chas. Mc. Burney, Jr., M.D., Surgeon to St. Luke's Hospital.

Austin Flint, Jr., M.D., Prof. of Physiol., Bellevue Hospital, Med. Coll.

J. W. S. Gouley, M.D., Surgeon to Bellevue Hospital.

Edward Curtis, M.D., Surgeon, N. Y. Eye and Ear Infirmary.

Charles Laight, M.D., Surgeon, N. Y. Eye and Ear Infirmary.

Freeman J. Bumstead, M.D., Surgeon to Charity Hospital.

George M. Lefferts, M.D., Surgeon to N. Y. Eye and Ear Infirmary.

W. Cockcroft, M.D., 59 West 45th St.

Stuyvesant F. Morris, M.D., Surgeon, New York Dispensary.

J. S. Thebaud, M.D., Surgeon to the Colored Hospital.

J. C. Jay, Jr., M.D., Physician to Children's Dispensary, etc.

Richard H. Derby, M.D., Surgeon, N. Y. Eye and Ear Infirmary.

Beverley Robinson, M.D, Surgeon, Manhattan Eye and Ear Hospital.

E. R. Peaslee, M.D., Prof. Bellevue Hospital Medical Coll., Physician, Woman's Hospital, etc.

Dr. Burggraeve, Emeritus Professor in the University of Ghent, is about to publish, under the patronage of the kings of Belgium, Sweden, Holland, and Italy, and the emperors of Russia, Austria, and Brazil, a work entitled; "*Histoire Générale de la Vaccine; ou, Monument à Edward Jenner, à l'occasion du premier centenaire de son invention.*" It is to be published in Paris, by subscription, at a price of thirty francs.

The Pennsylvania Act to regulate the practice of Medicine, Surgery and Obstetrics has passed the Legislature and received the signature of the Governor. The law specifies that the essential qualifications for a practitioner of medicine shall be "a comprehensive and practical knowledge of human anatomy, human physiology, pathology, chemistry, materia medica, obstetrics, practice of medicine and surgery, and public hygiene, and a good moral character." The possession of a regular diploma is to constitute a sufficient license to practice, provided it has not been obtained by purchase solely. Persons without diplomas are to be examined by a board to be appointed by the Court of Common Pleas, and to consist of three members, who are to receive five dollars each from each candidate examined. Exceptions are made in the case of persons who have been for a stated time in practice without diplomas; and transient, advertising physicians are required to pay two hundred dollars annually for a license.

Retiring Rooms for Ladies.—A company has been started in London to provide retiring rooms for ladies.

The Public School Buildings of Philadelphia have been pronounced to be wretchedly ventilated, and defective in almost every other sanitary provision.

Mr. G. W. Callender, F.R.S.—It is reported that this London surgeon contemplates a visit to the United States during the latter part of the coming summer.

The Hahnemann Hospital.—By virtue of an act of the Legislature, signed by the Governor on March 20, the Homœopathic Surgical Hospital and the Hahnemann Hospital were consolidated under the above title. The Association have possession of ten lots on Sixty-ninth Street and Lexington Avenue.

A Large Brain.—The *Cincinnati Gazette* mentions that Wm. Boswell, a blacksmith, who died suddenly in an Indianapolis saloon a short time since, from excessive abuse of alcohol, had a brain weighing sixty-one ounces. His entire weight was over three hundred pounds. The degree of his mental development is not mentioned.

The Colorado Territorial Medical Society will hold its fifth annual session in Denver, commencing Wednesday, 9th of June, and may continue three days.

A Quack Doctor in Manchester, named Thomas Hoop, has lately been hung for causing the death of a young woman, upon whom he operated for the production of an abortion.

The Medical Department of the University of the City of New York have broken ground on East Twenty-Sixth Street for a new college building. The new building is to be directly opposite the entrance gate of Bellevue Hospital, and is to be very much larger than the one used by them for several years past.

Dr. Daniel H. Kitchen, Chief of Staff of the Charity Hospital, has resigned his position.

The Indiana State Medical Society is to meet on the third Tuesday of this month, and an effort is being made to organize throughout the State county societies, to be represented in the State society in a manner similar to our own.

Professor Cheever, of the Medical Faculty of the Michigan University, has returned from his two years' residence in Colorado, in a much improved condition of health, and is expected to resume his duties, which, in his absence, have been discharged by Professor Gerish, of Bowdoin College.

Canine Sagacity.—The *Medical Times* has another letter narrating instances of canine sagacity; this time from Walter F. Atlee.

"Dear Sir:—In a letter recently received from Lancaster, where my father resides, it is said:

"'A queer thing occurred just now. Father was in the office, and heard a dog yelping outside the door; he paid no attention until a second and louder yelp was heard, when he opened it, and found a little brown dog standing on the step upon three legs. He brought him in, and, on examining the fourth leg, found a pin sticking in it. He drew out the pin, and the dog ran away again.

"The office of my father, Dr. Atlee, is not directly on the street, but stands back, having in front of it, some six feet, a stone wall with a gate. I will add that it has not been possible to discover anything more about this dog.

"This story reminds me of something similar that occurred to me while studying medicine in this same office nearly thirty years ago. A man named Cosgrove, the keeper of a low tavern near the railroad station, had his arm broken, and came many times to the office to have the dressings arranged. He was always accompanied by a large, most ferocious-looking bull-dog, that watched me most attentively, and most unpleasantly to me, while bandaging his master's arm. A few weeks after Cosgrove's case was discharged, I heard a noise at the office-door as if some animal was pawing it, and, on opening it, saw there this huge bull-dog, accompanied by another dog that held up one of its front legs, evidently broken. They entered the office; I cut several pieces of wood and fastened them firmly to the leg with adhesive plaster, after straightening the limb. They left immediately. The dog that came with Cosgrove's dog I never saw before nor since."

"Les Annales des Maladies de L'Orielle et du Larynx," is the name of a new journal to be published bi-monthly in Paris. MM. Ladreit, de Lacharrière, Isambert, and Krishaber are to be the editors, and G. Masson the publisher. Price twelve francs per year.

The Wisdom of Providence in the Allotment of Disease.—Mark Twain describes chills and fever as a merciful provision of an all wise Providence, to enable people to take exercise without exertion.

The Eucalyptus in Italy.—It is reported that the Italian Government, following the course it has already adopted on previous occasions, will gratuitously distribute this year five thousand plants of the Eucalyptus globulus, for cultivation in the Agro Romano.

Ovariotomy under Numerous Difficulties.—The *Tribune Médicale* tells of a Dr. S. G. Stevens, who, travelling in Central America, without other instruments than such as were contained in his pocket-case, performed ovariotomy successfully. A trocar was extemporized from a piece of bamboo, the pedicle was ligated with hair, and the abdominal cavity, after being cleansed with wadding, was closed with iron wire. A missionary administered chloroform, and was his only assistant.

The American Pharmaceutical Association is to hold its next meeting in Boston, commencing on the 7th of September. The Boston druggists have raised about $7,000 to defray the expenses of the entertainment of the visitors. Among other amusements proposed are a reception and banquet at the St. James Hotel, a concert at the Music Hall, and an excursion in the harbor.

Dr. Foster Swift, formerly of this city, died on the 10th of May, at St. Croix, West Indies.

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Weekly Bulletin of the Meeting of Medical Societies.

Monday, May 31.—N. Y. Neurological Soc.; Path. Soc. of Brooklyn.

Tuesday, June 1.—N. Y. Obstetrical Society; East River Medical Assoc.; N. Y. Dermatological Society.

Thursday, June 3.—N. Y. Academy of Medicine.

Friday, June 4.—Medical Library and Journal Assoc.

Original Communications.

VOCAL FREMITUS IN PLEURISY AND PNEUMONIA, AND THE USE OF THE HYPODERMIC SYRINGE IN THEIR DIAGNOSIS.

By E. G. JANEWAY, M.D.,

NEW YORK.

The value of vocal fremitus as a physical sign in the diagnosis of pleurisy, with effusion from pneumonia, is, it seems to me, not infrequently rated too highly. Some, in fact, appear to consider it an absolute means of distinguishing the one from the other condition. My reasons for not esteeming it as much as those who hold this opinion, are based upon the observation of cases in which such a belief would have been or proved to be a mistake. Let me first give a brief record of two cases of pleurisy with effusion, in which vocal fremitus was present over the affected portion. The first of these was a male patient in Ward 8 of Bellevue Hospital last summer (Simms), age 33.

He was taken sick two days before admission with rigors and a pain in the left side. When admitted the physical signs of interest were: Flatness on percussion on the right side of chest below the angle of the scapula, increase of vocal fremitus over the affected portion, feeble and distant respiratory sounds, ægophonic vocal resonance.

June 3d, two days later, distinct vocal fremitus was present over the affected portion, and a hypodermic syringe withdrew clear serum from the pleural sac at this part.

Aspiration of the affected side was performed several times, with only partial relief, and in consequence of obstruction of the needle, or failure of the apparatus, on two occasions but little fluid was obtained. After the second aspiration air was detected in the pleural cavity above the level of the remaining fluid, but below this vocal fremitus persisted. Later seropus and pus formed in the cavity, and it was decided to make an opening in the pleura, and allow the fluid to drain off. The reasons for the operation were the great dyspnœa, the existence of pus in the sac, the failure of aspiration to afford relief which was more than temporary, the increasing weakness of patient, and finally paroxysms during which the patient would pass almost into a state of collapse. The day following the incision vocal fremitus disappeared from the affected portion. On the 12th of November the patient was discharged. The second patient was a male fifty years of age, admitted to Bellevue Hospital on the 17th of November, 1874.

His illness had commenced one month before, with symptoms which pointed to the existence of pneumonia on the left side. When admitted he was thought to have a chronic pneumonia, or pleurisy with pneumonia of left lower lobe, extending into upper. Of this man I made a very careful examination about a week before his death. The following physical signs were then present: Flatness on percussion existed over the lower lobe of the left lung, except near its most anterior portion; here there was some resonance.

Bronchial voice, whisper, and respiratory murmur were heard over this part more distinct above, more distant and feebler below.

Measurement showed the two sides to be of equal size. The heart was not displaced, and vocal fremitus existed over the affected portion, and was increased as compared with the opposite side.

There was no change of the level of flatness on percussion, and this line of flatness corresponded very closely to the interlobar division. The character of the bronchial breathing and voice made me suspect fluid, and so at my request the House Physician, Dr. Chapin, introduced the needle of a hypodermic syringe in the pleural sac, but failed to obtain any fluid. The hypodermic syringe seemed to be good, as tested by drawing up water from a tumbler. I then proposed bringing an aspirator on the succeeding day, for more thorough exploration, but the patient passed into a typhoid state, seeming to indicate the existence of meningitis as a complication. A post-mortem examination revealed the following: Dilatation of the ventricles of the brain with a granular condition of the ependyma, and empyema of the left side corresponding to the site of the left lower lobe, and shut in by adhesions of the upper lobe. A small portion of the anterior part of the lower lobe was adherent to chest, near heart, and the rest was carnified and pressed upwards, inwards and backwards.

The heart was not displaced. The lower part of the upper lobe of the left lung was hepatized. There was no adhesion of the lung over the space where I had perceived vocal fremitus; nor was any band-like adhesion, such as sometimes occurs, present.

These two cases, which have been observed within a period of eight months, are sufficient to show that vocal fremitus may be present over fluid in the pleural sac, and may even be exaggerated. The disappearance of the vocal fremitus in the one case after the removal of the fluid, and the results of the post-mortem examination in the other, show that the vocal fremitus was conducted through fluid to the chest wall.

In addition to these cases, I have observed two others during the same period, in one of which a slight vocal fremitus existed over fluid in the left pleural sac. This was enough to cause one physician to doubt the correctness of the diagnosis, though the left side was two inches larger than the right and the heart displaced. He, however, confessed when a hypodermic syringe drew fluid from this portion and an aspirator removed sixty ounces of serum.

In the other case the vocal fremitus was increased, but of this case I will make no use, as the patient escaped from my observation before I was able, satisfactorily, to determine the conditions present.

Again cases present themselves in which the vocal fremitus is exceedingly feeble or absent on the healthy side, and then the absence of this sign has no especial value on the diseased side.

Such a case I have lately seen in a young man with rheumatic pericarditis and a small effusion in the left pleural sac. In this case vocal fremitus is absent at corresponding points on the two sides, but above the level of the fluid for a short distance it is considerably increased on the left or affected side: while at a corresponding point on the right side it is only feebly perceptible. Bronchial character of the expiratory sound is audible over the fluid and broncho-ægophony exists near its upper limit. I can very readily imagine that an incomplete examination might lead to the supposition of pneumonia. While I have been writing this article the fluid has accumulated somewhat on the right side also, but the vocal fremitus remains as at first. On the other hand cases have occurred in which pneumonia has been mistaken for pleurisy, with effusion, by very good observers. Some years ago I made the post-mortem examination in a case of supposed pleuritic effusion. The autopsy revealed a small aneurism resting on the left main bronchus, and this completely occluded by a firm thrombus which had formed by the escape of blood from the aneurism into it by means of a small opening. The left lung was throughout in a state of gray hepatization, and its bronchi were filled with purulent fluid. Those who had seen this case, during life, stated that all the signs of pleuritic effusion had existed, absence of vocal fremitus, of respiratory murmur, of vocal resonance, with the existence of flatness on percussion. If any suspicion of the real condition of affairs had been entertained it seems probable that absence of displacement of the heart, and of increase of the measurement of the affected side might have corrected the diagnosis, considering the extent of disease. Since that time I have seen a second nearly identical case.

Again it sometimes happens that with ordinary pneumonia producing complete solidification of a lobe considerable diminution or absence of the vocal fremitus may occur.

Allow me in closing this short article, which is written in order to draw attention to the need of caution in the interpretation of physical signs, to urge the importance of attending to each physical sign in doubtful cases of these two diseases, and also of examining the symptoms presented by the patients, and the course which the disease takes. In doubtful cases, where, if fluid should exist, the line of treatment would be decidedly different, I think it wise to make use of an exploratory puncture. This may be done by means of a small needle attached to the aspirator, or, as this not infrequently alarms patients, at Bellevue Hospital a hypodermic syringe is often employed for this purpose. Considerable difference exists in the suction power of these instruments, and I have seen one introduced in a chest and fail to obtain fluid when another immediately afterwards succeeded. The safest test is not that of seeing whether water can be drawn through the needle into the barrel of the syringe; but, placing a finger over the nozzle, withdraw the piston and retain it in this position for a few seconds, and then note if the atmospheric pressure will force the piston back to its original position. With one, which answers perfectly to this test, I have succeeded in drawing pus from abscesses; and lately, in order to give it a fair test and also to relieve a patient, I employed it to remove thick gelatinous fluid from a ranula. This fluid was a little more viscid than the mucus of cervix uteri. If honest doubt existed after its use it would be wise to make use of an instrument with greater suction force.

Summary of the conditions of vocal fremitus in pleurisy and pneumonia:

1st. Vocal fremitus is usually absent over fluid in the pleural sac.

2d. When present *(a)* it is sometimes due to adhesions of the lung to the chest wall below the level of the liquid.

b. Again, it is sometimes conducted through the fluid, and then it may be either feebler or more intense than on the opposite side.

c. In some cases vocal fremitus does not exist or is very feeble at the lower part of the chest on the sound side; under these circumstances its absence on the diseased side loses some of its relative value.

3d. Vocal fremitus is usually increased over pneumonia of the lower lobe.

4th. It may, however, be very feeble or absent.

a. This may be due to obstruction of the bronchus by compression, or by the accumulation of some material in it, as, in one of the cases reported, coagulated blood.

b. Sometimes it seems due to the presence of a considerable amount of exudation in the pleural sac.

c. The amount of solidification is supposed at times to be the cause.

5th. Vocal fremitus is sometimes absent on the sound side; under such circumstances the existence of considerable vocal fremitus on the diseased would point strongly towards, though not be decisive of, pneumonia, as the morbid condition present.

My friend and colleague, Prof. Flint, is also in the habit of drawing attention to the greater value of absence of vocal fremitus on the right side as a sign of pleuritic effusion, and of its exaggeration on the left side as a sign of pneumonia, in view of the normal difference of vocal fremitus on the two sides.

It will be obvious, that in this article I have considered that the more important physical signs, percussion and auscultation, have pointed out the site of the disease, but have not been able to establish the diagnosis.

REPORT ON THE PROGRESS OF OTOLOGY.

By ALBERT H. BUCK, M.D.,

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Read before the Medical Library and Journal Association, April 30, 1875.

Mr. President and Gentlemen:—In response to the polite invitation of your committee I have prepared a report on the Progress of Otology during the past year. Two plans suggested themselves to my mind: either to prepare a thorough digest of all the published essays and works on otological subjects of the year, or simply to call your attention briefly to some of the more important ones—those which appear to me to be real and solid additions to our knowledge of the anatomy, physiology, pathology, and therapeutics of the ear. I have chosen the latter course, not only because I believe it will prove more interesting to you, but also because a very thorough and complete digest is furnished every year by a committee of the American Otological Society.

The chief difficulty I have encountered in preparing this report has been not the *dearth* of subjects to which I might call your attention, but rather the *superabundance* of really valuable contributions, by means of which otology has perhaps been more advanced during the year 1874 than during any previous one.

In the department of anatomy, I will first allude to the researches of Brunner, of Zurich:—

Gustav Brunner[*] contributes a very interesting and thorough paper on "The Connections between the Ossicles of Hearing." Not very long ago Rüdinger described the existence of a separate fibro-cartilaginous disk between the articular surfaces, not only of the incudo-stapedial, but also of the malleo-incudal joint. This meniscus, or interarticular cartilage of Rüdinger's, was compared to the semilunar cartilage that separates the articular surfaces of the knee-joint. On looking through the microscope at a thin section, made through one of these ossicular joints—the incudo-stapedial, for instance—I am sure that almost any ordinary observer would at once be disposed to agree with Rüdinger; the dark, well-defined line which bounds the so-called meniscus on either side, may very readily be taken for a line of separation,—the tissues on one side of it being separate and distinct from those on the other. Brunner has, however, resorted to the device of rupturing the capsular ligament on one side of the specimen, while it lies upon the object-glass, and in this way he has demonstrated the fact, that this "boundary line is only the optical expression of the difference between the two forms of tissue," and not an actual dividing space, however thin. As regards the connections between the stirrup and the oval window, Brunner confirms the descriptions given by Eysell and other observers. He does not agree, however, with the statements made by Rüdinger regarding the existence of lacunæ in the connective tissue which separates the border of the foot-plate of the stirrup from the margin of the oval window. He is rather disposed to consider them as artificial products. In this view it seems to me that he is right, for if we remember how quickly an elastic tissue retracts, when its points of support have been taken from it, we can readily understand how these apparent lacunæ are created. The connective tissue lying between the articular cartilaginous surfaces of the ossicles retracts, after the razor has severed so many of its points of support, and as a result there is formed at this point a double depression, one on the upper surface of the section—I am imagining a section before me—and another on its under surface; in other words, the section being very thin, there is left at the point in question a minimum or even an entire absence of interarticular connective tissue, appearing to the eye like a lacuna.

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[*] Archives of Ophthalmology and Otology, vol. iii., No. 2.

The paper contains other interesting points, but we cannot allude to them in this brief report.

In the department of physiology I would call attention to the following contributions:—

Alfred M. Mayer, of the Stevens Institute of Technology in Hoboken, N. J., has written a valuable paper * entitled, "Researches in Acoustics." Among other things he gives an account of an experiment, by means of which he is able to analyze a composite sound. He thus describes it: "A loose, inelastic membrane (thin morocco leather does well) was mounted in a frame, and placed near a reed-pipe. The ends of several fine fibres from a silk-worm's cocoon were brought neatly together, and cemented to one and the same point of the membrane, while the other ends of these fibres were attached to tuning-forks (eight in all, in the present experiment) mounted on their resonant boxes." On sounding the reed-pipe—the tension of the communicating silk fibres having been first properly adjusted—the forks sang out in response to the vibrations of the membrane. The forks, it should be remembered, were selected with special reference to the fact that their respective tones were harmonics of the fundamental tones produced by the reed-pipe. Nevertheless, without the intervention of the tense communicating silk threads, these different forks would have remained silent. Mayer therefore concludes that "the point of the membrane to which the fibres are attached is actuated by a motion which is the resultant of all the elementary pendulum-vibrations existing in the composite sonorous wave, and the composite vibrations of this point are sent through each of the fibres to its respective fork. Thus each fibre transmits to its fork the same composite vibratory motion, while each fork can only vibrate so as to give the simple pendulum-vibration of a simple sound, for each fibre is attached to its fork at a point which lies in the upper node of the segments into which the fork divides when it gives its higher harmonic. . . . . . The fork will then select from the composite vibratory motion, which is transmitted to it, that motion which it has when it freely vibrates; but if its proper vibration does not exist as a component part of the resultant motion of the membrane, it will not be in the least affected."

Without entering any further into this particular subject, I will simply call attention to the great importance of this experiment in clearing up the difficulties connected with the mechanism of the act of hearing. We can now understand clearly how through one and the same spot—the umbo of the drum-head, for instance, or the foot-plate of the stirrup, if all the other vibrating parts have been destroyed—composite tones of the most complex nature can be transmitted to the labyrinth, there to be analyzed, as it were, by the complete set of tuning-forks which it possesses—viz., the organs of Corti.

Prof. Adam Politzer, of Vienna, contributes an interesting paper to the *Archiv für Ohrenheilkunde** on "The Relations of the Stapedius Muscle to the Facial Nerve." Passing over the anatomical points, I will simply call attention to the results of certain experiments made by him for the purpose of ascertaining the function of the stapedius muscle. By exposing the intracranial portion of the facial nerve—which sends off branches to the stapedius—and placing a manometer tube (partially filled with a colored fluid) in the external auditory canal of a freshly killed dog, he found that, when an adequate irritation was applied to the facial nerve, a negative movement—by which I understand an upward movement—was observed in the column of fluid in the manometer. The same movement was observed in the case of the human ear, when, instead of irritating the nerve, the muscular fibres of the stapedius were drawn upon by the forceps. Politzer therefore concludes that *the stapedius muscle is in reality a laxator of the membrana tympani.* The same method of experimentation was applied to the labyrinth for the purpose of ascertaining whether the pressure upon its fluid contents was increased or diminished by the contraction of the stapedius. The sinking of the column of fluid in the manometer tube, when the muscle was pulled upon, showed that *it was also the function of the stapedius to diminish the pressure upon the labyrinthine fluid.*

During the past year the question of the function of the semicircular canals of the labyrinth has been revived with great vigor. The experiments made some fifty years ago by Flourens, and repeated afterwards by other physiologists, seemed to determine beyond a doubt that in these peculiar structures resided the power of controlling the equilibrium of the body. In 1870 Goltz repeated the experiments, and was led to the conclusion that the semicircular canals "were organs of sense for the maintenance of the equilibrium of the head, and so also, indirectly, of the entire body." In 1872 Böttcher, of Dorpat, by operating in a somewhat different manner from that pursued by his predecessors, was able to divide the posterior vertical semicircular canal of the frog *without* producing in that animal any of the peculiar movements described by Flourens. This induced him to carry out a series of similar experiments upon pigeons, the results of which are published in the *Archiv für Ohrenheilkunde* for 1874. These are, in brief, the following:—

In those cases in which the operation was carried out without any special precautions, and in which, as a consequence, there was considerable hemorrhage from the vessels in the neighborhood of the semicircular canals, the results obtained were essentially the same as those described by Flourens, Goltz, and others, viz., twisting of the head to one side, rolling movements, travelling in a circle toward the affected side ("*mouvements de manége*"), unsteady and uncertain gait, pendulum-like motions of the head, etc. In one case the twisting of the head and the rolling movements did not appear until the fifth day after the second operation (division of the canal on the opposite side). At the post-mortem examination in this case the evidences were found of an acute inflammation of the dura mater in the vicinity of the region where the second operation had been performed, and extending thence to the portion which covers the cerebellar hemispheres.

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* The American Journal of Science and Arts, vol. viii., Aug., 1874.

* Vol. ix., 3d fasciculus.

In a second series of cases, although great care was used in performing the operation, the results varied very greatly. Thus in one case, after division of the inner vertical canal of one side, the bird showed a tendency to fall forwards, but this continued for only two days. After division of the horizontal canal of the opposite side, pendulum-like movements of the head began, and the bird showed a tendency to fall towards that side. The pendulum-like movements, however, soon ceased, and the bird slowly recovered the use of its legs. The power of flight was totally lost after the second operation.

In another case, after division of the semicircular canals, the tendency to move in a circle showed itself, but soon passed off. Although a semicircular canal on each side had been divided, no pendulum-like movements occurred. A short time after the operation, and notwithstanding the fact that the continuity of the semicircular canals was broken on both sides, no disturbance of the equilibrium could be noticed. Furthermore, the tendency to move in a circle scarcely showed itself at all when the bird walked, while during its flight it was very marked. The peculiar manner of holding the head sideways, and the attacks of bringing the head down in such a way that the top would touch the floor, did not appear as the immediate result of the operation, but for the first time as late as four weeks after the operation, that is, after the full disappearance of all the immediate effects of the operation. These peculiar symptoms were therefore due to some disturbances which must have developed at a later date, and were only indirectly connected with the division of the semicircular canals. The rolling movements appeared in connection with the twisting of the head whenever the bird was very greatly disturbed. There was no appreciable connection between the rolling movements and the tendency to move in a circle. The latter symptom was noticeable for a long time before the rolling movements appeared, and when these came the tendency to move in a circle disappeared altogether.

In still another case, after the division of both outer vertical semicircular canals, the twisting of the head and the rolling movements did not appear until after a lapse of about three weeks. There was total loss of the power of flight, and the left leg appeared to be permanently affected. At the autopsy, an extravasation of blood was found in the pia mater, on the left side, just over the origin of the acoustic nerve. The supposition is therefore justifiable that the symptoms which developed later—the twisting of the head and the rolling movements—were due to this extravasation.

Finally, in a fourth case, after the division of the lower arms of both vertical semicircular canals, the bird was still able to hold its head in a perfectly normal position. The ability to walk and the power of flight were very materially diminished; yet they improved very decidedly in the course of a short time. About ten days after the operation, well-marked pendulum-like movements in a vertical direction set in, and the power of flight appeared to be quite destroyed. At last these symptoms, too, almost entirely disappeared. No lesions found in the brain or its membranes at the autopsy.

In a third series of cases the operation was performed more successfully, as regards the avoidance of injury to neighboring important parts; and in these cases, after the division of one or more semicircular canals on both sides, but very slight and transient motor disturbances followed; the birds in a very short time entirely recovered their powers of locomotion, of maintaining perfectly their equilibrium, and of picking up particles of food.

By these very important experiments Böttcher proves that the semicircular canals may be divided *without* causing any of the symptoms described by Flourens and Goltz as specially due to a lesion of this apparatus. If, as he says, the destruction of the semicircular canals were the cause of these characteristic motor disturbances, the latter should have persisted as a permanent thing; instead of this, however, they soon disappeared entirely, notwithstanding the fact that the apparatus of the semicircular canals had been practically destroyed. Another point to which he calls attention, and which certainly has a suspicious character about it, is this: *the motor disturbances*, when only one side is operated upon, *always appear in the extremities of the side upon which the operation has been performed.* Thus the movements in a circle are always executed toward the injured side. A slight paresis of the foot or wing of one side would be sufficient to cause these peculiar movements in a circle, which have hitherto been considered as something almost specific of a lesion of the semicircular canals.

In conclusion, Böttcher thus states his views regarding this question: "These disturbances of equilibrium manifest themselves either immediately after the operation—and are then due to an injury of the brain, —or after the lapse of a few days, in which case they are due to pathological processes, which have involved the central portions of the nervous system."

As regards an injury to the brain, Böttcher calls attention to the fact that the auditory nerve is not bound down at any point between its origin in the brain, on the one hand, and the fundus of the meatus auditorius internus, on the other; and that consequently any operative interference with the semicircular canals, which may result in pulling upon or tearing the ampullæ or sacculi—that is, in pulling upon the vestibular fibres of the auditory nerve—must necessarily produce a certain amount of injury in that portion of the brain from which these fibres come. The variable results obtained from interference of this kind are due to the circumstance that at one time one set of fibres is pulled upon, while at another, another set. In this connection he quotes Brown-Séquard * as saying: "I have ascertained that the phenomena observed in these experiments do not depend on the section of these canals, as this operation may not cause these phenomena, but that they are the results of an irritation of the auditory nerve, from the drawing upon it by the membranous semicircular canals at the time we divide them."

In answer to the objection of some, that the motor disturbances here under consideration are of too long duration for so slight a lesion, and always take place on the side of the body corresponding to the lesion, —which does not agree with the generally accepted notion that an injury to one side of the brain should be followed by disturbances upon the opposite side of the body—Böttcher again cites the following remarks of Brown-Séquard (loc. cit.): "It is a fact worthy of attention, that a puncture with a needle through the anterior pyramids, which contain very nearly all, if not all, the nerve fibres employed in voluntary movements, will hardly produce a momentary contraction in some muscles; while certain punctures through the olivary column of the medulla oblongata at once produce a spasm of many muscles, although this column does not contain more than very few (if any at all) voluntary motor fibres! And now, to add to the strangeness of the fact, in this last case, the muscles remain contracted sometimes for hours, sometimes for days and weeks."

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* Course of Lectures on the Physiology and Pathology of the Central Nervous System. Philadelphia, 1864, p. 195.

"........There is, therefore, in some parts of the nervous centres, a property of acting in a persistent manner to produce muscular spasms, during and after a mechanical excitation."

"........The parts of the base of the encephalon, which are capable of producing persistent spasms, seem to be quite different from those employed in the transmission of sensitive impressions, or of the orders of the will to muscles, at least in the medulla oblongata and the pons varolii. They constitute a very large portion of these two organs, and perhaps the three-fourths of the first one; they are placed chiefly in the lateral and posterior columns of these organs; many of their fibres do not decussate, *and produce, therefore, spasms on the corresponding side of the body.*"

This is important evidence in favor of Böttcher's view; showing, as it does, that a slight injury of the medulla oblongata—the very part of the brain from which the auditory nerve springs—may result in motor disturbances on the corresponding side of the body, and furthermore that these disurbances may last for quite a length of time.

Böttcher's paper covers the ground very thoroughly, and well deserves the attention it is sure to receive from all who are interested in the physiology of the organ of hearing. It is a model of careful, patient research, calmly carried out by a man who seems to have but one motive—the ascertainment of truth.

The department of pathology, too, has been enriched by several valuable contributions. Wilhelm Meyer's paper on "Adenoid Vegetations in the Naso-pharyngeal Space," begun in the last number of the *Archiv für Ohrenheilkunde* for 1873, was finished in the March number for 1874. The pathological condition here referred to is one which has a most important bearing upon the organ of hearing. Out of 175 cases Meyer found that 130, or 74 per cent., were hard of hearing. As the mucous membrane of this region passes by direct continuity into that of the Eustachian tube and middle ear, we can readily understand why in so large a proportion of the cases the organ of hearing should participate in the naso-pharyngeal inflammation. The pathological condition here referred to consists in the presence of numerous, variously shaped tumors in the naso-pharyngeal space. These vary in size from a mere follicular enlargement to a mass the size of a cherry-pit, or even a hazel-nut. Sometimes they are pedunculate, at other times they are grouped together in a row, like the teeth of a comb. These masses are very vascular, and consequently of a bright-red color; they have about the same consistency as the parenchyma of the liver, and present either a smooth surface or one that is slightly granular. They rarely occur singly; as a general thing, there are from four to eight of them present. The presence of these tumors implies a degree of inflammatory irritation in the mucous membrane of this region which can hardly exist without an inflamed condition also of the Eustachian tubes at least. But these tumors may injure the organ of hearing in a simple mechanical manner; thus Meyer relates cases where one or two of these tumors, growing from favorable points, attained such a size as to entirely blockade the entrance or entrances to the Eustachian tubes. The microscopic examination of these tumors revealed them to be composed chiefly of what he terms "adenoid tissue," viz., a network of connective tissue supporting countless lymph-corpuscles, or lymphoid cells, as they are sometimes called. Here and there throughout the section the outlet ducts of acinous glands were also encountered.

The chief symptoms characterizing this affection are the peculiar expression of the face, and the defective pronunciation of certain words; both of these conditions being generally associated with more or less deafness. As regards the expression of the face, Meyer describes it in the following words: "In well-marked cases the mouth is constantly open, and the breathing takes place exclusively through it. There is also a lack of tone in the play of the features, and the expression is characterized by a certain shade of sadness. After the breathing has taken place for some length of time exclusively through the mouth, the nose assumes a peculiar sharpness of outline; it looks pinched, and the alæ appear to be sunken. If it happens that the patient is at the same time suffering from a chronic nasal catarrh, this peculiar expression of the nose will, of course, not exist."

The pronunciation is defective in two ways: in the first place, the voice lacks the normal resonance, and in the next, the nasal tones—m, n, ng—are exchanged for others. So, for example, the patient does not say "nase," but "dase," or "lase." Again, for the word "Zimmermann," he will say "Zibberbad," and for "Gesang," "Gesagk," and so on. These, of course, illustrate the modifications of pronunciation in a well-marked case. Such patients, Meyer says, have also great difficulty in singing high tones. Among other symptoms, he mentions the partial or total loss of the sense of smell, habitual headaches, the sensation of a foreign body in the back part of the nose, and the frequent escape of blood from the naso-pharyngeal region into the mouth. This last symptom he noticed in a little over 15 per cent. of all the cases that came under his observation.

While in this form of disease a positive diagnosis can only be made by physical means—inspection of the naso-pharyngeal cavity by aid of the rhinoscope and reflected light, or an examination of these parts with the finger, introduced through the mouth—we can nevertheless expect confidently to find adenoid vegetations in the naso-pharynx whenever we encounter the peculiar expression of countenance and the defective pronunciation described above. Thus Meyer states that he examined 2,000 school-children of both sexes in the public schools of Copenhagen, for the purpose of ascertaining simply by looking at their countenances and hearing them speak, how many of them were suffering from this affection. He found 20 children (1 per cent.) in whom these characteristics were well marked, and in each instance he verified the diagnosis by a digital examination through the mouth. Meyer made a similar investigation in England, and found the proportion to be 13 out of 700, or nearly 2 per cent.

As regards the question of age, Meyer found that, out of 175 cases, 134, or 76 per cent., were between the ages of five and twenty; the youngest patient was three years old, the oldest fifty-nine. In a few instances he found that there was a family tendency to this trouble; thus, in three instances three sisters were affected with the disease, and in seven, two sisters.

As regards the etiology of this disease, Meyer simply states that the same causes which co-operate to produce a chronic catarrh of the naso-pharyngeal mucous membrane, are active in the production of adenoid vegetations.

So far as his observations go, Meyer believes that these adenoid vegetations, which usually commence to grow during childhood, but remain stationary during youth, will, if left to themselves, shrink away and disappear during maturity. Hence, so far as they themselves are concerned, these vegetations might be allowed to remain without any interference on the part of the surgeon; but when we take into account their important bearings upon the organ of hearing—not to speak of the unnatural and disagreeable tone of voice which they produce—it becomes necessary to get rid of those already formed, and to check the further production of new ones. The prognosis, as regards the results of treatment, seems to be quite good. Meyer states that among a number of cases which remained under observation for a period of from two to five years, and in which the vegetations had been thoroughly removed, not a single relapse occurred. The prognosis as regards the hearing is also quite good. Out of 112 cases which had undergone proper treatment, the hearing was restored to the normal standard in 48 instances; in 29 it was improved; in 3 it remained unchanged; in 3 it was rendered worse; and in 29 cases no note was made regarding the effects of the treatment upon the hearing. This result appears in a still more favorable light when we examine the cases with regard to the length of time the deafness has existed. Meyer has classified the results in the following tables:

TABLE I.

Duration of Deafness.	No. of Cases Treated.	Cured.	Per cent.
Less than 3 months..........	10	5	50
From 3 to 12 months........	12	5	41.7
From 1 to 2 years............	17	9	52.9
From 2 to 5 years............	23	11	47.8
From 5 to 10 years..........	21	7	33.3 }
More than 10 years..........	21	10	47.6 } 40.5
Indefinite......................	8	1	12.5 }
Total......................	112	48	42.9

TABLE II.

The Hearing	Simple Catarrh. No. of Cases.	Purulent Inflammation. No. of Cases.	Total.
Was rendered normal in.....	34	14	48
Was improved in.............	18	11	29
Remained unchanged in.....	3	—	3
Became worse in....	—	3	3
Was not tested in............	23	6	29
Total......................	78	34	112

As regards the question of treatment, the essential thing, according to Meyer, is to remove the vegetations, whether by mechanical or by chemical means. In children, and where the vegetations are not large or too firm in texture, they can be destroyed by pressure made with the finger. If this cannot be done, we must resort to the use of some caustic, preferably the nitrate of silver, either in the pure form or mitigated by the addition of nitrate of potassa. The instruments to be used for this purpose are silver rods, armed with a flattened end-piece, and differently shaped, so as to enable the surgeon to cauterize readily growths springing from any part of the naso-pharyngeal space. Where the growths are large, and especially where they are firm in texture, it becomes necessary to use other surgical contrivances, such as the galvano-cautery, a double-bladed instrument like that used for crushing urinary calculi, a ring-shaped knife, etc. Whichever of these plans of removing the growths may be adopted, Meyer lays great stress on the frequent use of Weber's naso-pharyngeal douche.

Dr. D. B. St. John Roosa contributes a valuable paper on the "Etiology of Diseases of the Internal Ear." Out of 1,700 cases of ear affections, he found sixty-five, or nearly four per cent., that were suffering from disease of the internal ear. These cases Dr. Roosa divides into those of traumatic origin, and those which have arisen idiopathically. Among the cases of traumatic origin are classed those in which the deafness was caused either by a single and pretty sharp blow (falls and direct blows), or by a long-continued series of less violent shocks or blows, such, for instance, as the cannoneer, the boiler-maker, or the telegraph operator is subjected to. In discussing the subject, Dr. R. alludes to the interesting question "of why it is that some persons, afflicted with impairment of the hearing, hear better in the midst of noise," and expresses the view that all the explanations hitherto given of this phenomenon appear totally inadequate to explain it.*

Of the idiopathic cases eleven are attributed by Dr. Roosa to "hemorrhage into the internal ear, producing atrophy of nerve tissue;" two to "inflammation of the parotid gland, from which a catarrhal or periosteal inflammation extended to the labyrinth;" eight to "cerebro-spinal-meningitis, producing inflammation of the auditory nerve, or the labyrinth, or both;" two to "scarlatina, causing an extension of pharyngeal or meningeal inflammation to the labyrinth;" one to "measles, producing the same effect:" seven to "basilar meningitis, extending to auditory nerve, or labyrinth, or both;" eight to "primary inflammation of labyrinth or circumscribed basilar meningitis (about the root of the auditory nerve);" four to "internal administration of quinia, causing congestion and inflammation of base of brain and labyrinth (?)"; one, to "arrested development;" and fourteen to "unknown causes." In enumerating these different pathological conditions, Dr. Roosa undoubtedly means them to be understood as *probable* conditions; for our knowledge of the pathological anatomy of these cases is lamentably scanty, and unfortunately, is likely, from the nature of the case, to remain so for many years to come.†

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* I cannot recall at the present time from whom, or from what source, I obtained the following explanation of this strange phenomenon, but it has always seemed a reasonable one to my mind, and I shall therefore take the liberty of mentioning it here in a very brief manner:—

The pathological condition in the cases here under consideration is assumed to be one of rigidity, either of the annular membrane or ligament which holds the foot-plate of the stirrup in the fenestra ovalis, or of the secondary tympanic membrane, covering the fenestra rotunda. Ordinary waves of sound, such, for instance, as are produced in ordinary conversation, are not of sufficient strength to overcome the rigidity of the annular ligament, or of the secondary tympanic membrane; consequently the patient fails to hear the conversation. In the midst of loud noise, however, waves of sound are produced of sufficient strength to set the stirrup in motion, in spite of the existing pathological obstacles. Once in vibration, this little ossicle, which might very properly be called the key to the auditory chamber, can perform with a certain degree of freedom the subordinate vibrations called into existence by the conversation which is being carried on near by, vibrations which are necessary to the act of hearing it. The louder tones open the door for the entrance of the feebler ones.

† I can think of only one way in which we are likely in time to obtain a more accurate knowledge of the pathology of these cases of so-called nervous deafness. It is this:—The different deaf and dumb institutions should be furnished with suitable blank forms of questions, by means of which the aural history of each pupil could readily be obtained. These blanks, when filled out, should be placed in safe keeping, and, whenever a death occurs in the institution, the proper authorities should, if the parents or friends do not object, invite some competent aurist or pathologist to conduct the post-mortem examination. A care-

Very little is heard nowadays about the operation of dividing the tendon of the tensor tympani muscle. The reports published in Germany were so favorable, that American aurists at once began to test for themselves the value of this operation, especially as a means of relief from tinnitus. Dr. Oren D. Pomeroy, of this city, publishes a report * of eight cases, in which he performed the operation. In all of them the symptom of tinnitus was prominent. In one case, the patient experienced complete relief from this annoying symptom, but in the remainder, little or no change was experienced. On the other hand, in one case the tinnitus was aggravated by the operation ; and in another, in which the operation was commenced but not completed, a severe purulent inflammation of the middle ear resulted. While, therefore, the operation may in exceptional instances afford relief from tinnitus, it should hardly be advised except in urgent cases, where the patient is quite willing to run the risk of acute inflammation of the ear, for the sake of possible relief from a very annoying symptom.

In the department of aural therapeutics, I have no important advance to chronicle.

I should, perhaps, allude before closing, to the fact, that during the year two new text-books on diseases of the ear have appeared in the English language, one written by Dr. Roosa, of this city, and the other by Dr. Hinton, of London. Dr. Clarence J. Blake, of Boston, has also published an American edition of Rüdinger's photographic plates of the osseous structures of the ear, and has improved upon the original by the introduction of a plate taken from one of his own preparations. The appearance of these three important works, while, perhaps, they do not contribute much that is new to our knowledge of otology, indicates in a measure the increasing interest taken in matters pertaining to the ear.

Progress of Medical Science.

Diphtheritic Paralysis and Subcutaneous Injections of Strychnia.—Among a number of cases reported by Acker of paralysis after diphtheria of the pharynx, there was one in which complete sensory and motor paralysis of the superior laryngeal nerve occurred. He found the explanation of this difficulty in the exposed course of this nerve along the middle constrictor of the pharynx, where the local injury was communicated directly from the seat of the disease to the nerve twigs supplying it, just as in paralysis of the palatal and pharyngeal muscles. In the same case there was a marked want of co-ordination, especially in walking, which the author called diphtheritic ataxia. The paralytic symptoms preponderated markedly on the right side. There was also obstinate constipation, which was referred to an insufficiency of peristaltic movements owing to paresis of the muscular elements in the intestine. The treatment was by galvanization of the spinal cord, and *large* subcutaneous injections of strychnia, to the latter of which the author attributes the rapid cure. A two per cent. solution of nitrate of strychnia was used, and $\frac{15}{100}$ of a grain was injected daily, generally into the arm, as a general and not a local effect was desired, and this was the most convenient situation. The patient received by subcutaneous injection within the period of a month—*a sum total of over seven grains of the nitrate.* There was no local reaction or evidence of inflammation.—*Erlanger Med. Klinik.—Memorabilien*, April 8, 1875.

Reasons for and against Transfusion in Acute and Chronic Disease.—Billroth has arrived at the following conclusions regarding transfusion. In acute anæmia, injection of human blood may be justified in a case of the most urgent need, although hitherto it has seldom been used under such conditions ; there are no other satisfactory indications for it, either theoretical or empirical. He regards it as still undecided whether human blood is to be used to the exclusion of the blood of other animals. When it is designed to substitute healthy for diseased blood, as in cases of septicæmia, there is no reason, on any theory, to look for a favorable effect from the introduction of new blood, which at the best is comparatively small in amount. Even supposing it possible to renew all the blood in the system, the success of the operation would hinge upon the assumption that the putrid poison was present in the blood only, which is neither proved nor yet probable. He is also decidedly opposed to the view that there are either theoretical or practical reasons to expect anything at all from transfusion in chronic diseases.

In this connection some recent experiments of Landois are of interest. It seems to be established that the blood-corpuscles of animals, when introduced into the blood of another animal, are dissolved, with the result of forming coagula in the interior of the circulatory system, and to this phenomenon Landois is inclined to attribute all the symptoms noticed subsequent to those immediately following the transfusion, and attributable to the plugging up of the capillaries and small vessels. Sometimes, too, this plugging of the capillaries is due to these blood-corpuscles collecting together in masses before dissolving. the evidences of which consist in stases, extravasations, and sero-sanguineous effusions found on section of animals treated by transfusion. The corresponding symptoms during life are dyspnœa, increased peristalsis, vomiting, the occurrence of hæmoglobin and albumen in the urine, and the decrease of urea ; coldness of the skin and the formation of an exanthem resembling urticaria ; rigidity and contractions of the muscles ; irritation succeeded by depression of the nervous system and capillary hemorrhages from wombs. He concludes, then, that the transfusion of animal blood in chronic disease cannot exert the favorable effects reported, because of the renewed functional activity in the foreign blood-corpuscles, for these are dissolved ; such good effects, if they occur, are rather due to stimulation of the organism as by an alterative. —*Wiener Med. Woch.*, No. 4, 1875.—*Berl. Klin. Woch.*, April 12, 1875.

Symblepharon Treated by the Transplantation of the Conjunctiva from a Rabbit.—This operation has been performed in two cases by Prof. Otto Becker, of Heidelberg. The first was in a young man of seventeen, in whom a second operation was required for the relief of a small symblepharon near the canthus, which remained after the larger primary symblepharon had been treated by a plastic operation. The original injury had been a burn with melted zinc. Becker dissected off the symblepharon from within outwards and stitched it to the inner surface of the

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ful examination should be made, not only of those parts constituting the ear proper, but also of the auditory nerve of the brain, especially the medulla oblongata, together with its membranes. A full record of the results of this examination should then be filed with the history of the case, and should remain in the possession of the institution. If the principals of our deaf and dumb institutions would interest themselves in this matter, it seems to me that we might reasonably look for important results at a not very distant future

* Transactions of the American Otological Society, for 1874.

lid. The loss of substance was then made good by a piece about 8 mm. square from the conjunctiva bulbi of a white rabbit. This was stitched in at its four corners with very fine untwisted silk, and a simple compress and bandage applied. There was no change in the appearance of the graft till the third day, when vessels could be distinctly seen in it. The result was highly satisfactory, the portion of rabbit's conjunctiva becoming thoroughly identified with its new surroundings. The second case was in a boy of four years with symblepharon following a burn with lime, for whom there had been two unsuccessful operations by other surgeons. In this case the palpebra tertia of the rabbit was used, after the cartilage had been dissected out. It would not lie perfectly smooth, and the child was restless, so that on the day following the operation the engrafted piece was detached and rolled up, and about two-thirds of it sloughed away. Still the operation resulted in a substantial improvement in the mobility of the globe. Becker in this connection suggests the employment of the human conjunctiva, which is to be obtained from atrophied eyes instead of from the rabbit; and on the other hand suggests that a too small conjunctival sac in an atrophied eye might be advantageously treated by the new method.—*Rundschau*, April 12, 1875.

Fracture of the Clavicle by Muscular Action.—In a former paper, M. Delens has shown that fractures of the internal end of the clavicle are produced by muscular action. In more than two-thirds of the cases in the present article, in which he treats of fracture of the body of the bone, he shows that, although this arises from muscular contraction less frequently, yet this occurrence is not so very rare, as he has met with three cases in his own practice, and has found records of sixteen others. These have been usually met with in men from twenty-five to sixty years of age, and on the right side. The influence of debilitating diatheses—especially syphilis, and local changes in the bone, from osteitis, gummy tumors, etc.—is the predisposing cause of these fractures.—*Archives Générales*, March, 1875.

Pharyngotomy for the Removal of a Foreign Body from the Pharynx.—At a meeting of the Surgical Society of Ireland, on March 19th, Mr. Wheeler reported that he had performed pharyngotomy, and had successfully removed a foreign body from the pharynx, this operation being the first that had ever been performed in that country. It was in the case of a robust man, 45 years of age, who had accidentally swallowed a needle. The laryngoscope showed the needle, somewhat obliquely situated, with its eye buried in the left palato-pharyngeus muscle, its point in the left arytenoid cartilage. Attempts were made to extract it with the forceps, but it appeared to slip through the blades. Finally it became so firmly lodged that all attempts to depress or dislodge one end of the needle were ineffectual. As the patient became thin and pale, and was unable to swallow solid food, and occasionally suffered considerable pain, pharyngotomy was determined on.

An incision was made on the left side of the neck, from the body of the hyoid bone to the superior margin of the cricoid cartilage, through the integument and fascia. A small vessel, which was thought to be the sterno-mastoid branch of the superior thyroid artery, had to be tied. The layers of the fascia were taken up and cautiously divided on a director, until the common, external and internal carotid arteries, the superior thyroid artery, and superior laryngeal nerve, with some filaments of the ninth nerve, were exposed to view. The attachment of the omo-hyoid muscle was then separated. A staff passed into the mouth was made to push out the left side of the pharynx and an incision sufficient to admit the top of the index finger made down on it. The staff being removed, the opening was enlarged upwards and downwards and a finger passed behind the ala of the thyroid cartilage, but the needle could not be felt. Fortunately it was threaded, and Mr. Wheeler passing the threads out through the incision, and following them down to the tissue, was able, by scraping with his finger, to make out the head. It was then drawn out through the wound. No sutures were put in the gullet; the edges of the wound were approximated with carbolized sutures, and lint soaked in carbolic oil was laid over the wound; nutritive enemata were given, and a sponge soaked in iced milk was occasionally squeezed into the mouth, or the milk was given in teaspoonfuls, and though some came out through the wound the greater part followed the natural course. After eleven days fluid ceased to come through the wound, and the patient was discharged cured, after the lapse of another fortnight.

Mr. W. suggests in an operation of this kind the desirability of immediately arresting the hemorrhage from the small vessels necessarily divided; having the vessels well retracted; having a staff put into the pharynx from the mouth; of not passing a knife into the pharynx to enlarge the opening up and down as recommended by Mr. Cook; he says, do not mistake the thyroid gland for the gullet; operate on the left side as being more convenient than on the right, unless contra-indicated by the position and size of the gland.—*Irish Hosp. Gaz.*, April 15, 1875.

An Icelandic Skin Disease.—Dr. Finsen, in his recent work on the diseases of Iceland, describes, under the name of "Fox-worm" (Ræveorme), a skin disease that appears to be quite peculiar to that country. It attacks the hands only; red, slightly elevated patches, about the size of a three-cent piece, are formed on the dorsal surface, and on these patches small vesicles are developed. After the eruption—which, as a rule, commences near the wrist—has lasted some time, it dries up and disappears, apparently by desquamation, to be followed by a similar outbreak further down on the back of the hand, and a similar desquamation, and thus it gradually approaches the extremities of the fingers. On the palmar surface, the disease appears as cracks and furrows. When the eruption reaches the extremities of the fingers the matrix of the nail appears to be attacked; for the nail, without apparent inflammation or ulceration, is completely loosened, becomes brittle, and splits up into laminæ. The disease may continue for a long time in this stage, but after a longer or shorter time the nail falls off, and there is formed in its place, commencing at the matrix, a hypertrophic, deformed, rough nail, which is markedly lamellar in its structure, and generally projects beyond the end of the finger. In this case its free end is thickest. Sometimes it does not reach to the end of the finger, in which case it is thickest at its middle. Such a nail is called in Iceland a "kartnögl." When, after a long continuation of this disease, the nail is formed, the process ceases, though the results remain, and the *kartnögl*, and sometimes a shining condition of the skin of the hands,—which have lost their natural softness—last the remainder of the patient's life. The disease is regarded as incurable. The author considers it of parasitic origin, but does not state whether it is contagious. He has observed thirty-one cases.—*Hospitals-tidende*, Dec., 1874.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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REFORM IN MEDICAL EDUCATION.

The lively competition among our medical colleges has begotten a disposition to rest their respective claims for superiority upon the size of their classes and the number of their graduates. This has certainly a very dangerous bearing upon the progress of medical education. So long as it is conceded that the number of matriculants settles the respectability of any given college, there is always an ambition among rival institutions to get all the students they can. The temptation to resort to questionable means to gain this patronage is not always resistible, even by professors whose consciences are tender upon every other subject. The question seems not to be, how can we narrow the attendance upon our medical schools to a first-class standard of fitness, but how far can we go in order to insure the greatest number of names in our catalogues? When quantity is so much the primary consideration with our medical institutions, it is easy to see how strongly the current sets against mere quality—in other words, wherein lies the objection to the enforcement of some regulation requiring a preliminary examination on the part of those who seek admission into the schools.

It is useless to strive to alter the sentiment upon the question, and although every medical teacher must acknowledge that his position as a tacit supporter of the present system of medical education is an anomalous one, his college interests are apparently too strong to allow him to be just to himself or reasonable to his patrons.

The remedy in regard to preliminary examinations, of which we have already spoken in a previous issue, is simple enough; but its application is so complicated by the determined opposition of a few interested parties, that any hope of reform seems a long way off. The present management of our colleges is such that there is really no guarantee that any particular graduate has had even an ordinary preliminary education. There is no examination to determine this point before the student enters, and there is certainly none when he comes up for graduation. The anxiety to have a large graduating class would make such an examination, even if it were required, the merest matter of form.

The fact is, each medical institution has an individual monopoly of every student, from the time he enters until he receives his diploma. If the standard of a particular school is low, it matters not, so long as that school has the power to say that the said standard is high enough to answer its individual requirements for graduation. With so many different schools, and with so many corresponding differences in the requirements for graduation, it is reasonable to suppose that the qualifications which conventionally belong to the title of Doctor of Medicine are very variable and of very uncertain value. It is this monopoly of medical education on the part of the colleges which is one of the main obstacles to our progress in educational matters. If there could be some power which could prevent the graduation of any person not properly qualified, a very important step would be taken. To make this possible, the first thing to do is to deprive any medical college of the power of examining its own students. Let the medical professors be teachers merely, but let the board of examiners be an independent body, who are above even the suspicion of partiality. This is done in other countries, and we see no reason why it could not be done in ours. Each State could, by the recommendation of its Medical Society, appoint an examining board, whose duty it should be to examine all applicants for a degree of Doctor of Medicine. This plan would certainly stimulate the colleges to do their best to have their students pass this board, and a true and legitimate spirit of rivalry would be at once engendered. Each college would then strive for the distinction of the best school, rather than the largest school. There would then be no difficulty in having medical colleges insist upon preliminary examination, for their very reputation as institutions of learning would demand it.

This system of independent examination would stimulate the best kind of teaching in every way. No student would be bound to any given institution, but could be free to avail himself of the special advantages of each, it being sufficient for all practical purposes that he divides his complete course of study among all. Those colleges which had the greatest number of good teachers would then have the largest aggregate attendance, while the student could have the opportunity to choose the best teachers in all the branches. In our large cities, where there is more than one medical college, this plan could easily be adopted, and, in fact, because these advantages could be obtained only in large cities, the greater number of students would congregate thither, thus causing many of the mediocre schools to die for want of patronage.

The establishment of an independent examining board is, in our opinion, the only way we can enforce a proper standard of medical qualification. This would make the profession entirely independent of school influence. The question would then be not what the colleges taught, how long were their sessions, what were their clinical advantages, what was the reputation of their professors; but what their respective students knew when they came before a thoroughly impartial board. We cannot see how the colleges could suffer by any such arrangement, for the better the college the greater its chance of a large class. We have a board in this State competent to examine all applicants who have conformed to the requirements of the law as to time of study, etc. Although this board has been appointed for the purpose of examining only occasional applicants for a degree, its organization could be so perfected, and the details so arranged, that all the graduating classes of the State could come before it. We believe that one of the starting-points of reform in medical education would be the establishment of such a board in every State.

Reports of Societies.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, May 13, 1875.

Dr. E. R. Peaslee, President, in the Chair.

ON THE RELATION OF ALIMENTATION TO GASTRO-INTESTINAL DISORDERS OF INFANTS AND YOUNG CHILDREN.

Before the reading of the paper which Dr. B. F Dawson presented upon the above subject, he exhibited the intestines taken from a child seven months old. Up to the age of three months the child was apparently quite well, when it was taken with severe vomiting, which was protracted and followed by diarrhœa that kept up until general wasting was produced. Post-mortem was made four hours after death, and at various points in the intestinal tract the walls of the intestines were so softened by degenerative processes, that it was with the greatest difficulty that they could be removed and laid open without tearing. The rectum was entirely impervious, and during the last 72 hours of the child's life nothing whatever had passed. In those portions which were so agglutinated the walls of the gut were about the consistency of soft gum, and it was thought probable that nothing was left of the muscular coat, and there was remaining only the softened mucous membrane and peritoneum. There were no evident lesions of Peyer's patches. The specimen illustrated the softening which may take place in the walls of the intestine as the result of protracted gastro-intestinal disease.

The object of the paper read by Dr. Dawson was to furnish, if possible, some information which may be useful in our efforts for saving infant life. In order that the hearer might have a distinct appreciation of the importance of the question, the doctor referred to the fearful mortality which is seen in infancy, and stated that *one-fourth* of the children die before they reach the age of five years. From the study of statistics made by Ballard, of England, and those reported to the Academy of Medicine in Paris, and from his own experience and study of statistics in this country, he had arrived at the conclusion that deprivation of the natural food, and improper management of infants who must be brought up upon artificial food—in short, faulty alimentation—is the chief cause of gastro-intestinal troubles, which carry off a great majority of this one-fourth of all the children who die. So convinced was he that the root of the evil was to be found here, that he would much rather undertake the treatment of infants and children without a single article from the materia medica, but trust to careful attention to alimentation, than to trust in medicines in case only one resource could be placed at his command. The composition of the mother's milk and the anatomy and physiology of the digestive apparatus of the infant accord, the one being adapted to meet the requirements of the other. During the first month of infant life there is no secretion from those glands whose products digest the starchy elements of food; and the size of the liver and shape and size of the intestinal tube all go to show that whatever food is taken will be retained only for a short time, therefore should only be of that quality which is most quickly and easily digested. Still further, it goes to prove that fluid and not solid, that animal and not vegetable food is the proper alimentation for a child. If these requirements are not fulfilled, it necessarily follows that whatever is introduced into the stomach and intestinal canal is exceedingly liable to give rise to vomiting, gastro-intestinal catarrh, and gastro-intestinal disorders of various kinds, which ultimately lead to fatal results.

As to the quantity of food demanded for the infant, it is perhaps difficult to decide. The child, however, should not be induced to take any more than is sufficient to satisfy the appetite, and when this is satisfied it should at once be removed from the breast. This simple truth is one which is constantly lost sight of by mothers in general, and the common supposition is that every cry means hunger, and that the child requires an additional amount of food. Too large quantities, and too often repeated, should, however, be carefully avoided. If the stomach is kept over-distended, it is almost as bad as to feed the infant upon indigestible food. There is one positive guide with reference to the quantity of milk to be taken, and that is, when the child eructates the milk soon after nursing it is evidence that it has been over-fed, although by very many mothers it is considered as an indication of health. Such vomiting, it is true, may be due to fault in the mother's milk; but this can be so easily detected, and should be so readily recognized, and, in fact, is so rare, that it may be safely said that such eructations are due to over-feeding. Chronic vomiting and gastro-intestinal disorders can quite commonly be traced to this cause. Frequency of nursing also has very much to do with the production of gastro-intestinal trouble. Upon this question there is a great diversity of opinion. It is usually considered sufficient to give the breast to the child every two or three hours during the day, and once or twice during the night. Digestion does not go on so rapidly when the child is asleep as when awake, hence it should not receive food nearly so often as when awake. If food is taken as frequently during the hours of sleep as during the waking hours, it comes in contact with indigested food, or food but slightly digested, and is extremely liable to give rise to colicky pains, diarrhœa, etc. The majority of cases of gastro-intestinal matters which occur in infants, who begin life as healthy children, with healthy mothers, are due to over-feeding and too frequent feeding. But suppose we are called to attend a case where vomiting and intestinal troubles have been going on for some time, and the child is emaciating, etc., what are we to do? Shall we remove the child from the breast for a time—shall we give the stomach rest? The doctor's answer was, unhesitatingly, yes. According to the urgency of the case, stop all medicines, stop all alimentation, except, perhaps, a teaspoonful of cold water every fifteen or twenty minutes, and give the stomach absolute rest for twenty-four hours, and when nursing is resumed let the child nurse only a few mouthfuls, at moderate intervals, and this should be kept up for eight or ten days, when it will quite frequently be found that the normal quantity of food can be taken without trouble.

Constipation as well as diarrhœa is very often due to over-feeding and too frequent nursing. The stomach is over-taxed, and the food, instead of being coagulated in a fine coagula, comes in contact with old coagula, and the coagula then formed are large and hard, and, if not thrown up by the stomach, pass into the intestinal canal but little or not at all changed, and there, as hard, dry masses, give rise to constipation. It is an accumulation of such curds that sometimes gives rise to intestinal catarrh, which may finally terminate in severer forms of intestinal disease, and is probably one of the frequent causes of cholera infantum. Abnormal acidity of the stomach may sometimes be the cause of the formation of such abundance of coagula, but that is the exception and not the rule.

ARTIFICIAL DIET.

If this be judiciously selected, there is no reason why a child should not thrive as well upon artificial food as when its support is derived from the mother's breast. No food is capable of properly nourishing an infant unless it possesses heat and fat-producing properties. Any nourishment which does not come up to the requirements of a liquid food having the proper quality will produce intestinal troubles. What nourishment are we to give? Is there any one kind of nourishment which uniformly and perfectly supplies the place of breast-milk? The article which most perfectly answers all the requirements, and can be trusted to furnish all the elements of nutrition in the most digestible form, is milk from some animal. The milk of various animals varies to a certain extent in the properties of its different constituents; but the milk of the cow is the one which should ordinarily be used, and when properly prepared may answer all purposes. In its natural state it is not a fit article of food, and some article must be added which will effect a proper dilution. Water is the article commonly added; but by far the greater number of cases suffer in consequence of its addition. The addition of water alone does not improve the digestibility of the casein, for it does not dilute it; and when milk is introduced into the stomach, diluted with water, the water is soon taken up and the casein is left as undiluted and unchanged as before the food was given. Nor does the addition of sugar make the coagula any more easy of digestion; nor does skimming the milk act beneficially, but, on the contrary, deprives it of one of its most important constituents. Inasmuch as the mother's milk contains proportionately more fat than other milk, may it not be true that the finer coagula which is formed, when the mother's milk is introduced into the stomach, is due to the presence of this fat? and would it not be better to use the milk as an article of food, from which casein has been removed, rather than use the milk which has been deprived of its cream? It had been his experience that this was the more proper course to pursue. The admixture of farinaceous articles with the milk also leads to disastrous consequences. There is one article, however, which contains such small quantities of starch that it can be used with very great success for effecting a proper dilution of cows' milk, and that is barley-water. Good cows' milk diluted from one-third to one-half with barley-water forms one of the best articles of food that can be used for infants when it is necessary to bring them up artificially. If barley cannot be obtained, oatmeal may be substituted, and answers nearly as good purpose. This article produces a real dilution of casein, and renders the coagula much finer and more nearly like the coagula which is found in milk from the mother's breast.

FOOD FOR INFANTS DURING DENTITION.

There is a prevailing opinion that the child requires a much more substantial food when the teeth begin to appear, and also that the existence of a diarrhœa of greater or less severity, during this period, is a thing to be expected; consequently, when the child suffers from any gastro-intestinal trouble while the teeth are cutting, it is altogether dependent upon that process. The doctor expressed his conviction that faulty alimentation is the chief cause in the production of the gastro-intestinal troubles met with during this period, and that if the child requires a more substantial diet, it should be only such as contains milk as its chief base.

The paper was listened to with great attention, and the author concluded by saying that not all gastro-intestinal diseases could be avoided with the most assiduous care and attention to the diet of children; but that, as a result of his experience, he believed a great majority of these cases are due to improper alimentation, both as regards the quantity and quality of the food administered.

Dr. Joel Foster remarked that he regarded the paper of the evening as plain and practical. He had been particularly interested with regard to the question of over-feeding infants, and believed that almost as much mischief can be done in this way as by under-feeding. He was also convinced of the very great necessity of the mother nursing the child during the earlier period of its life, for she alone can furnish the real natural food for it.

With regard to artificial food, it was a subject in which he was particularly interested as being connected with the New York Infant Asylum. In that institution it is impossible in many cases to get natural food, and they are obliged to use some substitute, and the substitute which can best be made is cow's milk. The method of preparing it which he had followed was to allow the milk to stand until the cream begins to rise, and then take the upper portion and dilute it with barley-water. He was then particular that the food should be given at regular intervals, and it should always be so given at a temperature near that of the human body, for if given below that degree it is very likely to produce gastro-intestinal troubles, which destroy so many children. It had been found that milk taken directly from the cow and given to the children did not do nearly as well as when permitted to stand for about two hours, when a partial separation of the cream has taken place, and then taking the upper portion of the milk. In this way more fat and less casein is obtained.

Dr. Porter held that perhaps hot weather and other influences had very much to do with producing this class of diseases as well as improper alimentation.

Dr. Messinger urged the propriety of thoroughly cooking whatever article was used for diluting the milk, and he always insisted that the barley-water should be boiled for three or four hours.

Dr. Garrish objected to keeping the milk upon which the child is to be fed in the ordinary ice-box which contains meats, vegetables, etc. A convenient refrigerator can be made of a common stone crock, by placing a piece of ice wrapped in flannel in the bottom of it, and there the milk can be kept with the greatest ease.

Dr. McIlvaine regarded dilution of cow's milk as improper. He believed that the parotid glands secrete from the earliest period of life, and looked with a great degree of caution upon the statements made concerning experiments said to prove to the contrary.

Dr. Roberts referred to one point which had not been spoken of with regard to cow's milk, and that was that it is generally acid, while mother's milk will usually be found to be alkaline. He did not think that cow's milk is the best substitute that can be used for breast milk.

Dr. Hanks spoke with reference to the fact that among that class of people where gastro-intestinal diseases prevail most extensively, the children are poorly cared for as well as ill-fed, and that it is a very common thing to find them overburthened with clothing during the hot weather.

Dr. Lewis Smith remarked, with reference to the use of farinaceous food, that up to the third month the salivary glands and pancreas are present only in a rudimentary state, consequently that fluid which is afforded by the animal economy for the digestion of starchy material is absent, but it is also probably true that the starch is not so irritating as is casein undigested. He has been accustomed to use the upper portion of the milk after it has stood for a short time, and prefers to use some article for dilution in which the starch has been changed into dextrine or glucose, and recommends Liebig's food. He does not think that sugar should be added at all during warm weather when diarrhœa is present. If there is constipation he gives sugar, and sugar of milk is the best form in which it can be employed. He was of the decided opinion that many deaths occur among children from the fact that the mother regards eight, ten, or twelve stools every day as necessary while the child is teething. This widespread error should, if possible, be corrected.

Dr. Robinson suggested that the weight of the child might determine whether it was receiving sufficient food or not. Decrease in weight might be due to other causes, but a careful observation would enable us to strike out these liabilities to error, and enable us to determine whether the decrease was due to insufficient supply of food or not.

NEW JERSEY STATE MEDICAL SOCIETY.

One Hundred and Ninth Annual Meeting at Atlantic City, N. J., May 25th and 26th, 1875.

The 109th Annual Meeting of the New Jersey State Medical Society took place at Atlantic City, on Tuesday and Wednesday, May 25th and 26th. It brought together, as usual, a large assemblage of leading New Jersey physicians, and this year was honored more than usual by the presence of several from other States. The railroads afforded unusual facilities, the Camden and Atlantic Railroad conveying all in attendance free of charge, and even the City by the Sea gave a hearty welcome. The Camden County Society made most perfect arrangements, and added a most enjoyable collation to the other entertainments.

The President this year was Dr. G. H. Larison, of Lambertville, who is both a laborious physician and a Baptist preacher. His address reviewed the history of medicine, was elaborate and comprehensive, and fulfilled the expectations of those best acquainted with the author.

We noticed upon the platform well-known assistant officers, Drs. Wm. O. Gorman, J. V. Schenck, H. R. Baldwin, Wm. Elmer, Wm. Pierson, W. Philips, S. Wickes, and, by invitation, Professors Gross, Agnew, and Levis, of Philadelphia, and Dr. Buck, of New York; Profs. Gurney, H. C. Wood, Goodell, and others, of Philadelphia; Dr. Adams and Dr. D. B. Hunt, of New York. Besides delegates from the State Societies of New York and Pennsylvania, there was also able representatives from Massachusetts and Rhode Island, whose presence and cheering words added zest to the occasion. At the banquet Profs. Agnew and Gross, and Dr. R. J. Levis, spoke for the profession in Philadelphia, and Dr. Newman for New York, and all with great acceptance. Response was made by members of the profession in New Jersey. Mr. John Lucas, on behalf of the Camden and Atlantic Railroad Company, also made an appropriate and acceptable speech.

The business meeting reports were heard and acted upon with executive promptness, in order that due time might be secured for strictly medical matters. As the time allotted to the meeting was taken up with the regular order for each period, corresponding members were invited to occupy an hour before the full session of the morning.

Many listened with interest to two excellent illustrative cases of pelvic abscess, by Dr. Buck, of New York, which were reported and commented upon with his usual ability. The report of the Standing Committee was read by its chairman.

Dr. Wickes, as usual, gave a terse and excellent resumé of the various reports from the county societies, with reference to such cases as will be reported in full in the Transactions. Throat disease and scarlet fever were noted as having occurred in very many localities the past year, while there was a decrease in all alimentary disease. The severe winter seems to have added to bronchial and pneumonic mortality, but especially among the aged. Variola had prevailed in two localities. A case in which the sudden death of three children seemed to have occurred from the use of the milk of a cow, which had broken pasture and drank of very foul water, had in it some points requiring investigation. A peculiar form of rash, a kind of mongrel roseola and rubeola, accompanied with typhoid symptoms, which readily yielded, had prevailed in one or two localities. It has been a year of unusual fecundity, and in two or three sections proliferation seemed epidemic. The entire report was full of interest, and even the analysis it deserves would be too lengthy for our columns.

The essay by the third Vice-President, Dr. H. R. Baldwin, had for its subject Diagnosis. He insisted upon the importance of that kind of examination which not merely correctly names the disease, but informs as to stage, degree, and all that precision and accuracy which tends to make of medicine an exact science. Illustrative cases were given, and the value of the ophthalmoscope and other instruments in the close measurement of disease was enforced. The subject was well treated, and the paper is valuable for future reference.

Dr. Ward, Assistant Physician of the New Jersey Asylum, was the appointed essayist, and read a valuable paper upon insanity.

He discussed with ability its causes, naming hereditary taint and improper methods of education as the two most prominent. Cases coming under his own observation were specified to show how persistent hereditary influence sometimes proved. The influence of higher civilization upon mental disease was discussed. The doctor claimed that true culture in nowise tended to develop mental disease. Although our methods of culture may cause insanity, and although the development of the most highly organized part of the human structure may make it more susceptible, this is counterbalanced by our ability to deal with it with preventives and remedies, which the higher cultivation also furnishes.

The one point especially elucidated as to treatment, was the bearing of wakefulness on all forms of insanity, and the importance of rest and sleep as the great restorers of disordered brain. Where there is tendency to idiocy or change of structure it may not avail; but a large number of cases of insanity are disordered functions, and sleep must be secured at all hazards. The article is an excellent and permanent contribution to the science and literature of our profession.

The essay on Medical Legislation was postponed until next year, on account of the absence by sickness of the appointee. Some interesting discussion was had upon the subject. The importance of sanitary legislation was recognized; but in the present state of popular ignorance as to the claims of scientific medicine, it is not believed that wise legislative protection can be expected from the "average statesman" whether at Trenton, Albany, or Harrisburg.

The meeting was in every way honorable to the profession of the State, both in its social and scientific character, and in the practical effort which the Society makes by its State reports to avail itself of clinical experience in different sections. The presence at the seashore of many of the wives and daughters of medical men did not detract from the enthusiasm of the occasion.

The Society will meet next year at Cape May, and having farther widened its views by ocean scenes, will probably then betake itself to Newton or Morristown, to feed and grow on mountain air. In the meantime, Philadelphia and New York wish all success to their nearest foster-children, the medical profession of New Jersey.

Correspondence.

THE PRESBYTERIAN HOSPITAL AFFAIR.

To the Editor of The Medical Record.

Sir:—Without having the pleasure of knowing or even suspecting the name of your correspondent "Medicus," who writes under the head of "Medical Advertising," in the last issue of your journal (May 29th), I cannot but admire his talent in sophistic reasoning, though attempted only by implication.

Medicus "reads with pleasure your editorials on the subject of advertising doctors,"—with no greater pleasure, I am sure, than yours truly, nor than any one of the sixty whose names were appended to the Protest against the recent action of the Board of Managers of the Presbyterian Hospital.

What possible connection exists between medical advertising and this protest?

Mirabile dictu, Medicus has discovered that these sixty members of the profession desired individually and collectively, one or both, to advertise themselves into notice by publishing their protest, with their names and titles appended, in a public journal.

Now, sir, this implication is too absurd on the face of it to require a reply.

Did it not occur to Medicus, that the sole object of the "sixty members of the profession," to which no "Medicus" should prove recreant, was to maintain the rights and dignity of the profession, and to stamp with their reprobation both the hospital and its managers who infringe these rights, as well as those four members of the profession who endorse the action of the managers by accepting the posts thus disgracefully made vacant?

Medicus would have been pleased if this protest had been confined to "one of the proper channels of communication with the profession,"—one of the medical journals.

Undoubtedly so; this is just what the managers also desired. Any publicity, under the circumstances, has been decidedly disagreeable. "It is a matter of no public interest whatever," has been their cry.

For my own part, I signed the protest without any knowledge that it would see the light further than in the Board of Managers to whom it was directed, and I presume the rest of the sixty did the same; but, for one, I am glad that it has been published in the daily journals, where it may reach the eyes of the public and influence the contributors to our well and ill managed charities—whom it concerns more than the medical profession, and to whom it may afford some indication where charity is *not* best applied.

The statement of Medicus that these four physicians were dropped "for cause," is unworthy of notice, while he and the Board of Managers dare not specify what this cause is; although the same is well known to originate in the old conflict between ignorant nurses and doctors in the sick room, and arrogant, self-conceited "directresses" and the medical staff in hospital wards.

Assuring you of my hearty sympathy and co-operation in your efforts to raise the standard and support the dignity of the medical profession, I beg leave to subscribe myself, with card enclosed,

One of the Sixty.

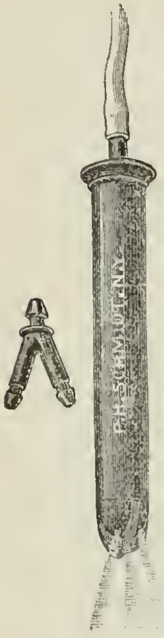
New Instruments.

A NEW VAGINAL SYRINGE.

By W. H. STUDLEY, M.D.,

NEW YORK.

I have met, in my practice, with at least a dozen cases of unmistakable *uterine colic*, produced by vaginal injections. The accident has occurred in the majority of instances by the use of the Davidson, Essex, or Fountain syringe. It arises, undoubtedly, from the small diameter of their female points, their conical shape, the fact that their extremities are pierced with a hole in the centre, and the conjunction of these facts with certain pathological conditions of the os and cervix uteri. A prolapse of the uterus to a certain extent, by which the vaginal and uterine axes are made to coincide more or less, a retroversion, a patulous os, these and other conditions afford too many and too favorable chances not to be utilized to the production of this mishap, under the use of such instruments as those just alluded to. But it is not alone the *danger* which condemns their employment. They are *inefficient.* In consequence of the smallness of their diameter they fail to distend the folds of the vagina sufficiently, either for the purpose of reaching thoroughly the cervix uteri or the crypts and the muciferous glands which lurk between the vaginal rugæ. The ordinary glass and rubber *piston* syringes, although efficient in the direction of vaginal distension, are to be discarded in the main, because they involve the objectionable necessity of frequent introduction and withdrawal, in all cases, at least, where the desired object is abundant and lengthened injections. And then, too, they are not without their dangers. It is only necessary that one of the orifices of the syringe shall be in juxtaposition and continuity with the cervical canal to insure the accident in question. Another objection to the syringes in ordinary use is that their orifices are flush with the planes of their ends and sides, and the consequence is that all those in contact with the vaginal and uterine tissues are effectually closed to the exit of their contained fluid. These are some, though by no means all, of the objections to the old syringes. I have made an attempt at a substitute without them. It undoubtedly is not perfect, yet I deem it possessed of sufficient merit to bring to the attention of the profession.



The accompanying wood-cut almost of itself describes the instrument, and obviates any lengthened detail. Its composition is vulcanized rubber. Its diameter is in the smallest size a half inch, in the largest size three-fourths of an inch. It is about six inches in length. Its proximal end is closed by a screw cap, from which juts a tubular projection, on which the rubber tubing of a Davidson, Essex, or Fountain syringe is sprung, or that which conveys the properly tempered water from the Y-shaped or *upsiloid* tube which receives the hot and cold water from their respective hydrants. The distal end is armed with a crucial guard; and in this consists about all that is peculiar to the syringe, and on which I base its chief advantages.

This guard is a jutting out of the same material of which the syringe-barrel is composed, to the extent of fully one-third of an inch from its end, and is a line and a half in thickness. The four right angles thus formed by the guard are coursed with one hole each, about a line in diameter. By means of this guard it is impossible to bring any one of them in juxtaposition with the uterine canal. Hence its absolute safety. By the same means it is impossible that any one of the orifices should be closed by contact with tissue, and hence its efficiency in reaching all parts to which it is directed,—while again, by the same means, an impingement of stream is allowed (issuing as it does from the syringe fully one-third of an inch from the tissues played upon), which of necessity must contribute greatly to the thoroughness of the douche. I have employed them now for about a year, and with increasing satisfaction.

160 East 83d St., April 14, 1875.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 23d to May 29th, 1875.

Sloan, Wm. J., Surgeon.—Announced as Medical Director of the Department. G. O. 29, Department of Dakota, May 4, 1875.

Knickerbocker, B., Assistant Surgeon.—The order directing him to proceed to Fort Colville, W. T., is revoked, and he is assigned to temporary duty at Fort Vancouver, W. T. S. O. 60, Department of the Columbia, May 11, 1875.

Medical Items and News.

Unusual Mortality among Elderly People in London during the Past Winter.—*The Lancet* says: "The winter may be said to have lasted from the middle of November to the end of March. During this period of twenty weeks 37,326 deaths were registered in London, equal to an annual death-rate of 28 per 1,000. In the corresponding period of 1873-4 the deaths in London were 32,378, or only 25 per 1,000. Of this excess nearly 2,000 were of persons aged upwards of sixty years."

A Sentence of Death has been pronounced against a man named Graves, who seduced a young lady in Brockville, Canada, and a Dr. Eric B. Sparham, who, at the desire of the former, produced an abortion, causing her death.

College of Physicians and Surgeons, Ontario.—Out of one hundred and twenty candidates who entered their names for examination at the last commencement, fifty-eight passed and obtained licenses to practise. Among the number was Mrs. J. K. Tout, of Toronto. She is the first lady who has obtained a license to practise medicine in all its branches in Ontario.

The New Lyonnaise School of Medicine and Pharmacy.—The Municipal Council of Lyons have appropriated one million francs for the construction of the newly established school of medicine and pharmacy, and negotiations are at once to be opened with a view to the organization of a faculty.

Prostitution in Buenos Ayres.—Buenos Ayres has established a law governing prostitution, which resembles in its general characteristics the laws adopted in other countries, viz., in requiring an examination of the registered prostitutes; imposing fines on clandestine prostitutes and upon men who cohabit with them; and the absence of any inspection of the physical condition of men resorting to houses of prostitution.

Resection of the Scapula.—Dr. Vuzengo Omboni reports in the *Raccoglitore Medico* the complete removal of the scapula for a medullary osteo-sarcoma, followed by survival of what remained of the patient. The doctor claims this to be the fourth case of removal of the scapula in Italy.

New Aids to Diagnosis.—At Rome a conference of the medical clinic of the University was held on the 18th of April, to hear Dr. Collengues explain the mechanism and working of three new instruments devised by him, and entitled the pneumoscope, the dynamoscope, and the bioscope, which promise to be of some use in the practice of medicine. With the former may be produced artificially all the abnormal murmurs proceeding from the respiratory organs in a state of disease; with the dynamoscope may be determined the scale of all the sounds which are made at the digital extremities by continuous movement of the tissues: while the bioscope registers with precision the heat, the electricity, and the functional activity of the skin.

Ethiops Mineral.—Prof. Cadet states that the vapors of the sulphuret of mercury have been efficient in protecting from the paludal fever of the Campagna, etc. Equal parts of mercury and flowers of sulphur are boiled in water, in a room, in such quantities that the vapor is not unpleasant.

Vivisection in England.—The result of the agitation of the subject of vivisection in England has resulted in the arrangement of the terms of a bill in Parliament which, it is expected, will prevent any unnecessary cruelties or abuse in experiments made on living animals for purposes of scientific discovery. Another bill, known as Lord Hutton's, has also been introduced, which is, in the main, prohibitive of experiments and destructive of physiological research; and still a third bill, under the auspices of the Society for the Prevention of Cruelty to Animals, which is but little better than the last mentioned.

Cholera in India.—It is reported that cholera has again reappeared in that portion of India where, for seven years past, it has proved fatal to so large a proportion of the population. The disease has also appeared in Ceylon, where, in Colombo, out of four hundred and five cases, two hundred and eighty-eight proved fatal.

Monument to Morgagni.—A monument was to have been erected on the 27th of May, to John Baptist Morgagni, the great anatomist, pathologist, and clinical teacher, by his native town of Forli, in Italy. The town council invited to the ceremony all the medico-chirurgical academies and faculties in Italy, and the principal medical bodies of other countries.

A Charge of Manslaughter has lately been made, in Lincoln, England, against a Dr. Wood, who was called to attend a woman whom he found to be flooding. The case seemed to have been one of placenta prævia, and the doctor delivered at once. After remaining for what he considered a reasonable time after the delivery the doctor left, and in an hour thereafter was recalled, owing to the patient becoming worse, and found her dead from collapse. A *post-mortem* examination disclosed a ruptured uterus, but the medical evidence exculpated the doctor from all blame in the conduct of the delivery; and the question urged in the court relates to the length of time the doctor remained after the child was born.

The Rockland Co. Medical Society, at its annual meeting, held at New City, on the 25th of May, elected the following officers for the ensuing year: *President*, Dr. C. H. Martin; *Vice-President*, Dr. G. A. Lockwood; *Secretary*, Dr. William Govan; *Treasurer*, Dr. Henry H. House; *Librarian*, Dr. J. S. Wigton; *Censors*, Drs. J. S. Wigton, J. O. Polhemus, and O. J. Wells.

Malpractice.—A surgeon named Peacock, of Nuneaton, a suburb of London, has lately been convicted and sentenced to six months' imprisonment for having cut away a quantity of intestine which protruded from the vagina of a woman whom he had delivered with forceps of her eleventh child, and who had suffered a rupture of the uterus. The impression among his professional brethren is that the rupture may have occurred spontaneously, and he is thought to have committed an error in judgment in a position of great difficulty and responsibility. The doctor has borne an excellent character as a student and practitioner, and efforts are being made to secure a remission of the sentence of imprisonment.

A Medical Law in Nevada.—Nevada has a "Medical Law" which went into effect on the 28th of March, and which makes it a misdemeanor for any person to practise medicine without a diploma certifying to a proper medical education.

Deceased.—On May 25th, Dr. John A. Ford, aged sixty-three.

On the same date, Dr. William W. Hedges, aged eighty-five, at Chester, Morris Co., N. J.

On the same date, Dr. John Stark, aged fifty years, of this city.

The Medical Society of the State of Pennsylvania will hold its annual session at Pottsville, on Wednesday, June 9th.

Homœopathy in the Ann Arbor School.—It is reported that the homœopathic lectures on therapeutics and practice in the Michigan University are to be delivered at the same hours as those on the like subjects in the "antipathic" branch of the school.

The Plague in Mesopotamia.—The *Levant Herald* announces the appearance of plague in the district of Dinanish, on the lower Euphrates. The disease appears to be scattered over a wide extent of country, and in the same localities where it existed last year. From the Hindeh Canal, near Hillah, to Samava, both banks of the Euphrates are occupied with a series of vast marshes, the islets of which are inhabited by Arab tribes. In 1867 the Hindeh marshes, after many years' absence of the plague from the district, became the scene of an outbreak of the disease. Early last year the marshes on the opposite (the east) bank of the river, occupied by the Affij Arabs, were the locality of an outbreak which is supposed to have caused the death of four thousand people.

Increased Fatality of Puerperal Fever in London.—The fatal cases of this disease registered within the limits of London in 1871 were but 182. During the three succeeding years they increased to 251, 306, and 456 respectively. During the first thirteen weeks of this year eighty-two deaths were referred to this cause, which, although exceeding by fourteen the average number during the corresponding period for the last ten years, were forty-one less than in the first quarter of 1874. The disease now exists in an epidemic form in many localities of London.

Another Training-School for Nurses.—The Commissioners of Public Charities and Corrections have passed a resolution to establish, on Aug. 1, at the Charity Hospital on Blackwell's Island, a school for nurses. The term of instruction is to be two years. Persons between the ages of 20 and 35 years are to be instructed, who are to be paid $10 per month for the first year, and $15 per month for the second year.

Examination of the Eyes of School-Children.—One of the most interesting as well as important of the papers read at the recent meeting of the American Social Science Association, at Detroit, was by Dr. Webster, assistant to Prof. C. R. Agnew, of this city, and contained the statistical results of examinations made of the vision of school-children in Brooklyn, Cincinnati, and New York. In these cities, the eyes of 2,884 scholars of both sexes, ranging in age from six to twenty-six years, had been examined, and the conditions as to refraction and disease noted. At the same time, the state of the school-rooms, as regards light, desks, heating, and ventilation, was observed, as well as the length and distribution of the time devoted to study, and other facts which might affect health.

Drs. Ayres and Williams examined the eyes of 1,264 scholars in Cincinnati, one-third of whom attended district schools, one-third the intermediate, and the remainder were pupils in the normal and high schools. In the district schools 13.3 per cent. were near-sighted (11.3 per cent. of the boys and 15.3 per cent. of the girls). In the intermediate schools 13.8 were near-sighted (9.5 per cent. of the boys and 18.1 per cent. of the girls). In the normal and high schools 22.8 per cent. were near-sighted (22.2 per cent. of the boys and 23.2 per cent. of the girls).

Drs. Prout and Mathewson examined the eyes of 600 students at the Polytechnic, in Brooklyn, all of whom were boys, 284 belonging to the academic and 316 to the collegiate department. Of the former 9.2 per cent. were near-sighted, and of the latter 21.8 per cent.

Dr. Cheatham examined the eyes of 1,020 boys in the College of the City of New York; 670 belonging to the introductory class, 210 to the freshmen, 110 to the sophomores, and 30 to the juniors. In the introductory class, which is made up entirely of students who have passed the public schools, 21.9 per cent. were near-sighted; of the eyes of the freshmen, 26.2 per cent. were near-sighted; of the sophomores 22.7 per cent., and of the juniors examined 50 per cent. were near-sighted, although of the juniors the number examined was too small to be of any scientific value.

The tables which were based on these observations show that staphyloma posticum, one of the gravest organic changes in progressive near-sightedness, increased from 0.5 per cent. in the district schools to 7.6 per cent. in the intermediate, and 10.4 per cènt in the normal and high schools. In one of the large schools, in which a careful ophthalmoscopic examination was made of every scholar, out of about 1,000 scholars the eyes of 703 were found to deviate otherwise than in refraction from the normal standard.

Bequests to Public Charities.—The late Don Alonzo Cushman left the following amounts to charitable institutions in this city: Orphan's Home of the Protestant Episcopal Church, $1,000; St. Luke's Hospital, $2,000; New York State Woman's Hospital, $500.

The late Mr. Denistoun leaves to the Presbyterian Hospital between forty and fifty thousand dollars, and the same institution will probably receive a very large amount from the estate of the late John C. Green.

The will of the late Albert Fearing, of Boston, makes the following bequests: To the Children's Mission to the Children of the Destitute, and to the Children's Hospital ten shares each of the capital stock of the Lawrence Duck Company, the par value of which is $1,000 per share, and what is left after certain other bequests have been paid and the estate has been settled.

A New Form of Glycosuria.—M. Jules David has recently observed in a case of diabetes following a large carbuncle, a substance resembling glucose in its reactions, but differing from anything hitherto discovered. The urine reduced Fehling's solution, although less readily than ordinary diabetic urine. Liquor potassæ also caused a brown discoloration. But on examining it with the polarizing sacharimeter, not the slightest trace of deviation could be discovered. Moreover, on analysis, no glucose whatever was found by the usual method. A solution of the substance, after isolation, reduced Fehling's solution readily. Its exact nature has not yet been determined, owing to failure of the supply of urine.

New York Hospital.—A bill has passed the Legislature and received the signature of the Governor, which exempts from taxation all the property of the corporation actually used for hospital purposes.

The Floating Hospital of St. John's Guild.—The Treasurer of the Guild acknowledges the receipt of $6,975 for the fund to establish the floating hospital, and says that over thirteen thousand more will be required to complete the hospital barge.

Barnum's Fat Woman—Mrs. Rohn—died in Baltimore, on the 28th of May, aged twenty-nine years. She was born in Licking Co., Ohio, and at the time of her death was six feet and four inches high, seventy-two inches in circumference about the waist, and weighed five hundred and eighty-three pounds.

The New York Dispensary for Nervous Diseases is the name of an institution opened on the 31st ult. at 155 East Twenty-sixth Street.

Professor Traube, of Berlin, has so far recovered his health that he is able to resume again this summer his clinique.

A New Hospital for Baltimore.—The corner-stone of the new building for St. Agnes Catholic Hospital, three miles from the city of Baltimore, was laid on the 30th ult.

Dr. John C. Bucknill, well known as an English writer on insanity, is visiting the United States.

The Jefferson Medical College have bought land adjoining the college for the purpose of erecting a hospital.

The University of Pennsylvania has received a bequest from the late Mr. John Fowne, of $10,000 towards its hospital fund.

Suspension of the Anderson School of Natural History.—Alexander Agassiz, Director of the Penikese Island School, announces that pecuniary considerations oblige the closure, for the time at least, of this valuable school.

Professor Hitzig, of Berlin, is to take charge of the Lunatic Asylum in Zurich, Switzerland.

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Weekly Bulletin of the Meetings of Medical Societies.

Monday, June 7.—N. Y. Ophthalmological Soc.

Tuesday, June 8.—American Microscopical Soc., Yorkville Med. Ass'n.

Wednesday, June 9.—N. Y. Pathological Soc.

Thursday, June 10.—N. Y. Laryngological Soc.; Brooklyn Pathological Soc.; Jersey City Pathological Soc.

Friday, June 11.—Medical Library and Journal Assoc'n; Harlem Medical Assoc'n.

Original Communications.

THE OPHTHALMOSCOPE AS A CEREBROSCOPE.

By CHARLES S. BULL, A.M., M.D.,

OPHTHALMIC SURGEON TO CHARITY HOSPITAL; ASSISTANT SURGEON TO THE N. Y. EYE INFIRMARY; PATHOLOGIST TO THE MANHATTAN EYE AND EAR HOSPITAL.

During the past year there have appeared many articles in domestic and foreign medical journals, upon the ophthalmoscopic signs of intracranial disease, and the ophthalmoscope has been lauded to the skies for the many discoveries it has made, and for the great and varied services it has rendered to the science of medicine in the vast domain of cerebral pathology. The little instrument has perhaps found its most ardent advocates among that class of medical men who have taken it up as an adjuvant to the diagnosis of diseases of the cerebro-spinal nervous system, and by certain members of this class the powers of the instrument have been extolled beyond all reason. Ophthalmologists as a class deprecate this almost limitless extension of the claims thus put forward, and it is the object of this paper to endeavor to state plainly how far the ophthalmoscope will really aid us in the diagnosis of diseases of the brain and spinal cord.

The claims of the ultra advocates of the ophthalmoscope may be best set forth by a statement of the views of M. Bouchut, who has devoted many years to the study of diseases of the brain and spinal cord in children. He lays down four laws for the formation of intra-ocular lesions depending on diseases of the brain, spinal cord, and meninges, as follows: 1st. Whenever the circulation is obstructed in the cranium, or in the sinuses or meningeal veins, in consequence of compression through distension of the ventricles by serum, or any other cause, an arrest of the venous circulation occurs, which produces swelling, hyperæmia, and œdema of the optic papillæ, varicosity of the retinal veins, and sometimes hemorrhage into the eye; 2d. When a cerebral tumor with general or partial encephalitis is present, a descending phlegmasia occurs, which brings on sclerosis of the optic nerve, exudations which compress and imprison the optic papillæ, and eventually produce atrophy of the same; 3d. If it be the spinal cord which is diseased by anterior or posterior sclerosis, since that organ, on account of its relations with the great sympathetic nerve, acts on the eye, papillary hyperæmia of the eye results, which in time brings on atrophy; this is seen in locomotor ataxy; 4th. Finally, in all diatheses and poisonings of the general system, when the whole organism suffers, the eye suffers like the rest of the body, and certain forms of neuritis and choroiditis result.

In a subsequent paper M. Bouchut writes as follows: "*Whenever* the brain or spinal cord is seriously diseased, the lesion is propagated to the eye, and appears in the optic papilla, retina, or choroid, giving rise to neuritis, or neuro-retinitis, or choroiditis, which must be *recognized* in order to determine their significance. This is a true *cerebroscopy*, that is, a means of seeing in the eye what is going on in the brain." The italics in the above passage are my own.

M. Bouchut further recognizes four forms of neuritis in cerebro-spinal diseases, viz.: 1st. A mechanical neuritis by obstruction and arrest of the meningeal circulation; 2d. A descending neuro-retinitis, occurring in acute and chronic encephalitis, and in intracranial tumors; 3d. An *ascending* neuritis, which he regards as the reflex of spinal diseases by a paralysis of the vaso-motor action of the great sympathetic nerve; 4th. A *diathetic* neuro-retinitis or neuro-choroiditis, depending on some constitutional taint, as struma, syphilis, leucocythæmia, diabetes, etc. In the tuberculous diathesis, Bouchut says there exists serous infiltration of the papilla, partial steatosis and fatty granulations of the retina complicated by tubercles of the choroid.

Let us now return to the consideration of these four laws. The first law states that whenever there is an obstruction to the intracranial circulation, from whatever cause, there results an arrest of the circulation of the optic nerve and retina, which produces hyperæmia and œdema of the papilla, varicosity of the retinal veins, and sometimes hemorrhages into the retina; in other words, we have a "choked disk." This is the view promulgated by Von Graefe, to account for the symptoms which he grouped under the name of "stanungs-papille," or choked disk. But of late this explanation has been controverted by some able ophthalmologists as insufficient. The cavernous sinus, into which is emptied the venous blood coming from the eye, is surrounded by unyielding walls, which do not admit of compression, and it is difficult to see how an obstruction in the circulation of the brain, at some distant point, could react upon a canal with rigid walls, unless the resulting intracranial pressure were very great. Cases of such extreme increase of intracranial pressure are rare, while choked disk is by no means an uncommon symptom of cerebral disease. A very able paper, by Dr. Loring, of this city, was recently read before the New York Society of Neurology and Electrology, which stated the case very plainly and satisfactorily, being based on anatomical and physiological facts. Another theory has been advanced to account for these intra-ocular manifestations, by Benedikt, several years ago. He holds that "choked disk," and even neuro-retinitis descendens, depend on a neurosis of the fibres of the sympathetic nervous system, a morbid innervation, which is a concomitant of many intracranial morbid processes. The peculiar disposition this shows to manifest itself in the optic papilla he explains by the anatomical fact that the blood-vessels of the retina perforate the rigid fibrous sclerotic coat, through the lamina cribrosa. When an active hyperæmia with swelling appears, the egress of blood from the eye is hindered; there is stasis, dilatation of the vessels, and growth of connective tissue, and finally, in consequence of the diminished circulation and swelling of the connective tissue, the case ends in atrophy of the vessels and nerve-fibres, and amaurosis is the result. From the known intimate connection between the sympathetic nervous system and the cerebro-spinal axis, morbid processes in the spinal cord or brain exert more or less influence on the sympathetic fibres, and through them on the vessels and other organs under their sway, and hence this theory of Benedikt's is a plausible one, and is perhaps of equal value with the theory by mechanical obstruction of Von Graefe, since it has not been proved to be false or insufficient. The causation of choked disk, however, is as yet an unsettled point, which future pathological investigations must decide.

M. Bouchut's second law is, that when a tumor with general or partial encephalitis is present, a descending phlegmasia occurs, which involves the optic nerve and ends in atrophy. Taking this statement in connection with a subsequent one, that grave lesions of the brain *always* cause lesions of the optic nerve, retina, or choroid, the whole ground seems to be covered. But the *fact* is that very many cases are on record in which not only tumors of the brain, but meningitis also, were diagnosticated, in which, throughout the whole course of the disease up to the fatal termination, not a single abnormal ophthalmoscopic sign manifested itself, and yet the autopsy confirmed the diagnosis of grave cerebral lesions. Many of these cases have been under the care of skilful ophthalmologists, and were carefully and frequently examined. I have seen within the past year three cases of grave cerebral lesion, where a diagnosis of intracranial tumor was confirmed by the autopsies, and yet not a sign of neuritis, or choked disk, or any abnormal appearance in the eyes presented itself.

A meningitis on the convexity of the cerebrum would probably not manifest itself in the optic nerve unless the inflammatory process had extended to the base of the brain. It is very evident that grave lesions of the brain do not always cause lesions of the optic nerve and retina, and, of course, when they are not to be seen, the ophthalmoscope will not help us. When there is a choked disk or a neuro-retinitis with exudation, then the ophthalmoscope points to some intracranial lesion, and may sometimes, in connection with other symptoms, help us to locate the disease, but not always. Moreover, we are by no means sure that the lesion is a tumor or a meningitis, or a cerebral abscess, from mere ophthalmoscopic examination. A choked disk is as often caused by a basilar meningitis as by a cerebellar or any other tumor.

The third law states that when the spinal cord is diseased from sclerosis or other pathological processes, on account of its relations with the great sympathetic nerve, the spinal lesion reacts on the eye, causing papillary hyperæmia, which ends in atrophy of the optic nerve, as is seen in locomotor ataxy. This statement is partly true, and partly false. In locomotor ataxy, the sclerosing process is very apt to occur simultaneously in the brain and optic nerves, and sometimes the lesion in the nerves of vision antedates by years the disease in the cord; but not a few cases of ataxy progress to a fatal end without ever showing any lesion in the optic nerves.

As regards other diseases of the spinal cord, ocular complications are not common, and in one of the most frequent, Pott's disease, the participation of the optic nerve stops at hyperæmia, and *never* advances to atrophy.

The fourth law of M. Bouchut is open to the same objections as the third; it is partly true and partly unwarranted. Syphilis attacks the retina and choroid very frequently, as do less frequently leucocythæmia and diabetes. As regards the tuberculous diathesis, the proportion of cases of general tuberculosis, or of tubercular meningitis, or of pulmonary tuberculosis, in which tuberculous deposits are found in the choroid, is very small indeed, and in fact any lesion of the retina or optic nerve in a tuberculous patient is not commonly met with. In speaking of the different forms of neuritis occurring in intracranial disorders, M. Bouchut mentions an *ascending* neuritis, which he regards as a reflex of the spinal lesion, resulting from a paralysis of the vaso-motor action of the great sympathetic nerve-fibres. If the word *ascending* refers to the direction of the inflammatory process in the nerve-fibres of the spinal cord, it is correct; but if it refers to the process in the optic nerve-fibres, it is quite faulty. An *ascending optic* neuritis is a process which starts from the distal or ocular end of the optic nerve, and ascends towards the brain or centres of origin of the optic nerve. A direct connection between sclerosis of the spinal cord and sclerosis of the optic nerve by continuity of tissue is very rarely met with at autopsies. In Pott's disease, where the degenerative or sclerosing process extends in both directions, upwards in the posterior columns and downwards in the anterior columns of the cord, we are very apt to meet with minor changes in the circulation of the optic nerve and retina. Now in this disease there is no extension of the morbid process to the brain or ganglia at its base, and the changes that we do see in the eye must be explained by a propagation of the morbid influence from the cord through the vaso-motor nerves to the vessels. But there is no inflammation or atrophy of the optic nerve-fibres.

By means of the ophthalmoscope we have unravelled the mystery of the old-time amaurosis, and have dissipated the shadows which formerly hung around all lesions of the deeper tissues of the eye. If the media of the eye are clear, all lesions of the optic nerve, retina and choroid, and many of the morbid processes within the brain may be diagnosticated without hesitation, and without the possibility of making a mistake. The different forms of retinitis and choroiditis may be differentiated from each other; and from the repeated occurrences of retinal hemorrhages, we may even prognosticate with some degree of certainty the occurrence of cerebral apoplexy. Tumors at the base of the brain, in the ganglia at the base, in the cerebral lobes, and even in the cerebellum, if of considerable size, will *generally* set up either a descending optic neuritis or produce the signs of "choked disk," but they will not do so always. Basilar meningitis, if anywhere near the median line or at all extensive, will always give us the same intra-ocular manifestations as tumors, that is, neuritis or choked disk. The ocular manifestations of cerebral lesions are almost always double, both eyes being involved, though not always to the same extent. But unwilling as we are to admit it, the ophthalmoscope as a *cerebroscope* is of limited extent; the more hopeful would perhaps say it is still in its infancy. There are many forms of amblyopia, and even of amaurosis, some transient, others permanent, which present actually not a single abnormal ophthalmoscopic symptom. The media remain clear, the optic nerve retains its clearly defined, rosy hue, the vessels are unchanged in appearance or calibre, and the retina is still transparent, and yet the patient does not see. There may be symptoms pointing to cerebral trouble, but these may be entirely absent, and we examine such patients day after day and see absolutely no change. Take, for instance, the attacks of dimness of vision occurring in persons suffering from chronic renal disorders. Perhaps the first symptom of any constitutional disorder is a failure of the vision—a dimness, as if a veil were drawn over the eyes. This lasts a variable time and then disappears, but recurs again and again, and the patient comes to us for examination. The ophthalmoscope is used, and the fundus of the eyes found absolutely normal; the examination is made repeatedly and carefully, and still nothing is seen. But the patient develops more constitutional symptoms; chronic renal disease is suspected; and finally, though by no means *always*, a peculiar, stellate exudation in the retina is seen, a fatty deposit in the region of the macula lutea, which until recently was supposed to be due *always* to chronic Bright's disease, but we now know that it is met with in other forms of retinitis, not dependent on renal disease.

The vision now becomes gravely and permanently impaired, and we have to deal with a retinitis or a neuro-retinitis albuminurica, to be clearly and rigidly distinguished from the preceding transient dimness of vision, which we term uræmic amblyopia; this is due to the poisoning of the nerve-centres by the urea circulating in the system. Here again the ophthalmoscope comes into play in its great rôle of differential diagnostician. We owe more to it than any one instrument, not even excepting the stethoscope, but we cannot do everything with it, and its great value can only be duly appreciated by those who know just how far it will surely aid us, and where to draw the dividing line beyond which we leave the firm ground of proven facts, and enter the broad realm of pure speculation, where oftentimes the wish of the observer is father to the thought. Enthusiasm *per se* is a wonderfully energetic agent in the cause of science, and when not guided by calm judgment, impels the investigator almost resistlessly into a region beyond the limits of observation and experiment; and this tendency is particularly pernicious when exhibited by observers who have a certain weight of authority in the medical world. Of course the more widely facts are spread after they have been proved to be true, the better for all of us, patients as well as physicans, but it is not well when any one observer attempts to speak *ex cathedra*, and to lay down rules for the guidance of his contemporaries at large, when such rules are unsound. The promulgator of such views, I think, incurs a grave responsibility, but this responsibility also falls with perhaps equal force upon the shoulders of all observers and students of science, who know that such views are extravagant and unsupported by facts, and yet by their silence not only fail to protest against, but tacitly concur in their extension.

214 West 44th St., May, 1875.

ON THE TREATMENT OF ACUTE NASAL CATARRH, ETC., BY THE TINCTURE OF THE CHLORIDE OF IRON.

A SECOND NOTE.

By J. S. PROUT, M.D.,
OF BROOKLYN, N. Y.

In the Medical Record for Jan. 1, 1874, page 8, will be found a communication from me on the success attending the treatment of coryza by large doses of the officinal tincture of the chloride of iron.

Since then my experience has been as there recorded: some cases yield immediately or speedily to its influence, others (more severe) are relieved to a partial degree only, and a few seem not to be affected by it.

How is this curative influence to be explained? It is well known that the tincture of the chloride of iron administered internally, is considered by many to be almost a specific in erysipelas. I consider the inflammation of the mucous membrane in acute pharyngitis, coryza, or frontal catarrh, similar in character—diffuse or non-circumscribed. I have seen cases of facial erysipelas that seemed to result from an extension outward of coryza, pharyngitis, etc., not, however, passing out by mouth or nose, by continuity of tissue, but as if by direct transmission through the intermediate tissues.

But, however the effect is produced, there is very often an abortive action on the inflammation; in half an hour relief may be felt, which may remain permanent, or a cure may require a few repetitions of the dose.

My practice is of such a character that I do not see many cases of *colds*. I am glad, therefore, to be able to give the experience of others.

Dr. C. S. Bull, 214 W. 44th Street, New York City, writes as follows: "I have used the tincture of the sesquichloride of iron quite frequently in cases of recent or incipient nasal catarrh, what is ordinarily called "a cold in the head," and almost invariably with a rapid beneficial effect. I give it as soon as the patient complains of the sense of fulness in the nose and head, in doses of from ♏ xx. to ℥ ss., and repeat every hour; usually I have not been obliged to give more than four or five doses, and sometimes not more than two. I have taken it myself, and always with good results. But it must be given early, otherwise it fails in producing the desired effect. I have not noticed any bad effects from its use in such frequently repeated doses."

Dr. N. B. Sizer, of 336 Greene Ave., Brooklyn, has during some time past made brief notes of cases of coryza treated by tincture of the chloride of iron, and recorded his results. He has left unrecorded a number of ordinary cases of cold in the head, neither severe nor annoying to the patient, in all of which, according to his recollection, relief was prompt and decided. His results are as follows:

"Number of cases recorded, 28. Age of youngest, 3 months; of oldest, 68 years.

"Results—Cured in 24 hours	10
" 36 "	12
" 48 "	3
Much relieved but not cured..... ..	1
Symptoms alleviated but not cured..	2
	28

"In those not cured the catarrhal inflammation was modified somewhat, but the disease ran its usual course There was no personal idiosyncrasy, as far as known, to interfere with the curative results in these last cases, and the cause of failure is unknown.

"The dose varied from 3 to 35 minims, with an equal amount of syrup or glycerine. The 30-minim dose has been given to an infant, with wonderfully quick effect, done tentatively, however, and not as a usual thing.

"There would seem to be no doubt, as far as my observation goes, of the generally excellent effect of the tincture in these cases."

The tincture should be largely diluted with water, and taken through a glass tube or straw so as to protect the teeth. Its effect is more pleasant if the stomach is not entirely empty.

The tendency of the iron to constipate may be very much lessened or entirely prevented by the addition of three or four drops of the tincture of belladonna to each dose.

THE DIAGNOSIS OF INSANITY.

By EDWARD C. MANN, M.D.,
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There is probably no disease which presents greater difficulties in the way of diagnosis than insanity. In most diseases we examine physical signs and symptoms, and we determine by our senses the existence of such diseases. In insanity, on the contrary, we have to be guided chiefly by our knowledge of the normal functions of the mind, and in our examination we have to rely on our intellect rather than on our senses, although of course the latter are called in to assist us It is, however, very often extremely difficult to decide with certainty, as we are expected to do, as to the existence of mental disease, and we assume a great responsibility, whichever way our decision may be given. We either give the patient liberty to take his place in society, and thus expose society to the consequences if he prove to be insane, or we place him in confinement in some institution for the treatment of the insane, thus depriving him of his liberty and his family of his support. It becomes, then, a matter of great importance to decide rightly as to the existence of mental disease, for if this is not properly done, we shall expose ourselves to the risk of great mortification, and also to the loss of professional reputation. Before going to see a patient who is to be examined for the existence of insanity, it is advisable to find out all one can from the friends and relatives; but in accepting such statement, it is wise to allow a wide margin for their information in regard to hereditary predisposition, as most people, foolishly considering the existence of insanity in their family a disgrace, will pertinaciously conceal and deny this fact both from themselves and from their medical adviser. Another reason for this concealment may be, that the members of such families are not infrequently odd and eccentric in their behavior, even when perfectly sane, and do not care to have their peculiarities attributed to hereditary taint of insanity, and therefore endeavor to mislead their physician on a point which is to him of the utmost diagnostic importance. Indeed, this and the question of previous attacks are perhaps the two most important points in the diagnosis of any given case.

We should endeavor, when we are called to our patient, to gain his confidence, and from a general conversation lead him cautiously to his state of health and mental feeling. If we are abrupt and wanting in tact we shall probably defeat our object, and the patient, if displeased, will either refuse to listen to or answer our questions, or will become very angry at our conspiring to deprive him of his liberty. If we are fortunate enough to get a history of the patient, we can generally determine easily the existence or non-existence of insanity, by the patient's appearance and conversation. Many times, however, we have to rely alone on the conversation, general appearance, and conduct of the patient, unaided by any other resources. After having gained our patient's confidence and having drawn him into a pleasant conversation, we should first inquire about previous attacks, then into his hereditary history, then into any predisposing causes, such as intemperance, vocation, habits, etc., which may have operated in the production of insanity. Also as to injuries to the head or spine which may have occurred, sunstroke, etc. We should then systematically, but carefully and cautiously, examine into the vegetative and reproductive functions, and then carefully examine the nervous system for the existence of any lesions such as paralysis, epilepsy, catalepsy, hysteria, and allied affections. We should next examine the different senses, beginning with sight, and in this way we shall find out if our patient has good vision, if the retina is normal, and, what is more important, we may discover if he has hallucination or illusions pertaining to this sense. We may then proceed to the sense of hearing, examining for deafness and also to discover any hallucination or illusions of hearing. Proceeding to the sense of smell we shall discover if it is normal, and also if there are any hallucinations or illusions connected with it. Taking up the sense of taste, we may inquire as to the existence of hallucinations or illusions. Patients often complain of their food being poisoned, or that they are eating injurious and hurtful things with their food. The last of the senses, that of touch and nervous sensibility, may be examined for imaginary sense of pain, the existence of reflex action, hyperæsthesia, and lastly, for hallucinations and illusions pertaining to this sense or referring to internal organs of the body. The mental symptoms unconnected with the special senses and pertaining to the intellect, the emotions or the will, may finish the examination.

Whether the diagnosis of insanity presents itself to the physician in a purely medical or in a medico-legal point of view, the principles of diagnosis are the same, and we must pursue our examination in precisely the same manner. The first thing we are generally called upon to decide is, whether the patient can be treated at home or whether it is necessary to place him in an asylum, and we are also probably asked for a prognosis, which latter cannot be too guarded, whatever may be our own impression at the time about the patient. Let us consider for a moment the first question, that of the propriety of removing our patient to an asylum. Insane patients are, by the very nature of their disease, inclined to do mischief. They are controlled in their actions by delusions that are to them vivid realities, and no one knows what they may consider it right and proper to do, when they are under the influence of such delusions.

Some of the most fearful crimes have been committed by those who had previously been regarded as harmless patients, and no one therefore should take upon himself the responsibility of advising that a patient whom he is called to see should be kept at home. The mere moral effect of a residence in a well-regulated asylum for a time, at the onset of insanity, has an immense effect on the mind of a patient, and may prevent, perhaps, consequences that might prove most disastrous, were he to be at home and exposed to the many causes of excitement from which he is sheltered in an asylum. We must also decide what form of insanity the patient is laboring under, and in a medico-legal case must give our diagnosis as to the insanity of the patient in its relation to his civil capacity and responsibility for criminal actions, and also as to feigned and concealed insanity. In this latter class of cases, medico-legal cases, it is of the utmost importance for every physician to understand that a man is not irresponsible for crimes which he commits from the fact that some of his ancestors have been insane. The question to be determined here is whether the hereditary taint, by being transmitted to the individual in question, has influenced or determined at all his volitions, impulses or acts. If on the one hand he has been noticed for displaying such peculiarities as usually proceed from hereditary taint, and if the crime was apparently unaccompanied by any adequate incentive, doubts of his legal guilt are then to be carefully considered. On the other hand, if the criminal act appears to have been rationally performed, and with some adequate and usual incentive, and if the individual has previously been free from mental infirmities or peculiarities that might be attributed to hereditary transmission, then we cannot justly advance insanity as a plea for defence from the consequences of crime. The diagnosis of insanity is at times very easily made. Thus if we find our patient, from having been previously moral, affectionate and industrious, has become immoral and dissolute, exhibits alienation of affections, and neglects his business, all without adequate cause, it is of course easy to determine his insanity, although of course changes may take place in the character of individuals without any suspicion of insanity being excited. A great many cases, however, are on the border line which separates sanity from insanity, and it often requires the nicest discrimination to determine whether such a patient shall be placed under treatment or not. It now remains to consider the diagnosis of the different forms of insanity which we meet with. In mania the physiognomy is generally distinctive. The countenance is furrowed, the eye wild and vacant, and there is generally a peculiar want of agreement in the expression of the features. The hair often becomes harsh and bristling, and the ears may become shrivelled. The actions, demeanor, and dress of an insane patient are generally indicative of mental peculiarities, and oftentimes the latter may be indicative of the nature of the patient's delusions, or, if not, it may display marked eccentricity. In acute mania it is generally easy to discern in the countenance the presence of some strong emotional characteristics, such as pride, hatred or anger. It has been remarked that insanity anticipates the effects of years, and prematurely imprints upon the countenance the facial lines characteristic of habitual emotions, while in lunatics of advanced age these are observable in a greater degree, and are more deeply marked than they ever are in sane persons. In this form of insanity the bowels are generally constipated, the urine is loaded with phosphates, and the patient suffers from that protracted loss of sleep which is diagnostic of acute mania, and which is a symptom that cannot be feigned by an impostor. Patients of this class pass several days without sleep, and sometimes weeks with but a few hours of sleep in the course of the whole time. Hallucinations of sight and hearing are far more frequent in this than in any other form of insanity. There may be also rapidly changing delusions, and there is generally an intense muscular restlessness, which manifests itself either in destructive impulses, or in continual motion, which rapidly induces dangerous exhaustion, if not properly treated. In melancholia the most noticeable symptoms will be despondency, fear and despair, and the expression of their mental states are depicted in an unnatural degree of intensity upon the countenance of the patient. The patient generally wishes to be alone, is gloomy and depressed, has delusions of fear and persecution, imagines he has committed unpardonable sins, and in the acute cases of melancholia no more pitiable spectacle can be imagined, and the expression of terrible apprehension and fear which occupies the countenance is not easily forgotten. The skin is generally dry, harsh and muddy, and the bowels constipated. It is such cases as these which have to be carefully watched, lest they give way to the suicidal tendencies which are generally present. In dementia, the lines of expression are more or less obliterated, and the vacant, meaningless expression and smile or laugh are indicative of this form of insanity. When the mind is tested, the power of memory, attention and comparison will be found to be partially or entirely wanting. It is only in primary dementia that the practitioner will find difficulty in reaching a decision, and sometimes these cases are very difficult to determine. In such case, one of the most valuable symptoms is loss of memory. The patient may, in his conduct and conversation, exhibit no marked peculiarities, but when the powers of his mind are tested as to the recollection of past events, or even as to the conversation of a few minutes previous, it will be found that he has entirely forgotten these things. This form of insanity is generally unaccompanied by hallucinations or delusions, and is nearly always due to some exciting cause, such as injuries to the head, and attacks of apoplexy and strong emotional disturbances. There is another variety of dementia which is secondary to acute attacks of insanity, and which differs somewhat from primary dementia. In this form of dementia we meet with the remains of the delusions of acute mania, and we also find an exaggerated state of emotional feeling which remains after the storms of acute mania have blown over, and the functions of the mind are beginning to suffer decay.

The diagnosis of general paralysis is very easy, after we have become acquainted with the disease. In the early stage, the most marked symptom is a thickness of articulation particularly noticeable when the words articulated by the patient are composed of several consonants, when these will be shuffled over in a very characteristic manner. The lips of the patient while he is speaking will be seen to tremble, and likewise the tongue, if it is protruded from the mouth. The gait of these patients is very peculiar and characteristic of paresis. They shuffle along in a manner that denotes at once the want of co-ordination in the muscles of the limbs. Later in this form of insanity the power over the sphincters is lost, the patient has to be cared for like an infant, and becomes a great trouble to his attendants. There is another class of patients whose only manifestation of insanity consists in an abnormal condition of the moral power, and who exhibit no obvious intellectual aberration or impairment. The symptoms of the mental disease in these cases is limited to the exhibition of morbid impulses, which the intellect seems powerless to control. These cases of moral insanity are sometimes difficult to distinguish, and the laity generally attribute such manifestations to total depravity. In such cases, we must compare the patient with himself when in a state of health, and not with any imaginary standard of sanity or insanity. We should bear in mind in this class of cases the excellent definition of Dr. Combe, who says: "It is the prolonged departure, without any adequate external cause, from the state of feeling and modes of thinking usual to the individual when in health, that is the true feature of disorder of mind."

We have thus far considered the diagnosis of insanity only in its relation to the existence of the disease. Let us finally look at the diagnosis of recovery, which oftentimes becomes a very delicate and difficult task for the examiner. We are to determine whether the patient has recovered so far as to leave no trace of insane ideas and delusions. We must compare the man with his former self in a measure, and see if his natural tastes, affections, impulses and mental powers have been restored. Of course, we must make an allowance for a certain amount of weakness in his intellectual functions, just as we expect to find a man weak bodily, after an attack of typhoid fever or other severe disease. We must determine whether the man's intellectual faculties, his memory, reason and judgment, are in a state to enable him to take his place and position in active life. We must observe also whether his conduct is reasonable and quiet. In homicidal or suicidal cases we must assure ourselves of the disappearance of the propensity. There are many patients who, although not recovered, are in such possession of their intellectual faculties as to become very impatient of restraint and confinement, and no amount of reasoning can make them appreciate the necessity for further detention in an asylum. A marked case of this character is at the present time under our care, and illustrates forcibly this class of cases, who, were they to be exposed to the excitement of society, before a thorough cure has been effected, would almost inevitably have a relapse.

This patient will argue for an hour at a time very sensibly and forcibly upon the injustice and oppression of keeping him longer in an asylum, and will challenge any proof of his insanity, and probably nine out of ten physicians not acquainted with him would say the man was sane. He will converse rationally upon all topics of conversation until the subject of religion is introduced, when he immediately reveals gross delusions, and maintains with the utmost sincerity that he can perform miracles, and that he is frequently the subject of them. This shows the importance of examining a patient upon all conceivable topics before pronouncing him cured. These are the cases that generally make their friends and relatives, and particularly strangers, feel that they are unjustly detained, and are the ones who, if they obtain their release in any way, publish their wrongs, and create in this way ill-founded prejudices against institutions for the care of the insane. Generally speaking, if a person who has been insane expresses himself as having been unjustly treated and detained, and denies the fact of his insanity, we may be pretty sure that he has not fully recovered, as persons who are really convalescent are generally fully convinced that they have been insane and are generally very grateful for the care and attention that have been bestowed on them, and express themselves so. Such patients are nearly always willing to be guided by their physician's opinion as to the proper time for their discharge, and do not, as a rule, exhibit that intense restlessness and desire to return home, which is so apt to characterize doubtful recoveries.

AN EASILY EFFECTUAL METHOD OF ARTIFICIAL RESPIRATION.

By J. B. MATTISON, M.D.,

CHESTER, N. J.

Among the many exigencies arising in the accouchment-chamber, none, ofttimes, are fraught with more importance than those pertaining to the thorough establishment of respiration in the newly-born babe.

Momentous interests, affecting the worldly weal of many, may hang on the performance of this function, be the time of its complete carrying on never so limited; and, as well known, among the adherents of a certain ecclesiastical belief, the establishment thereof sufficiently long to permit a peculiar ritual performance, entitles the subject to a sharing in those joys that are to be.

Aside from these considerations the advent of the little stranger awakens emotions in the maternal bosom, such as only a parent can know, and to have fond hopes and loving anticipations dashed ruthlessly down, may give rise, in highly impressionable temperaments and under unusual circumstances, to symptomatic manifestations, seriously imperilling a life even more valuable. It behooves him, therefore, who takes upon himself the duties of the lying-in apartment to be fully alive to all its demands in this direction, and to meet promptly, with the most efficient means at his disposal, whatever of an emergency may arise. Every qualified practitioner is supposed to be cognizant of the various conditions standing in a causative relation to this state of apparent death, and their variety necessitates a varied plan of operative procedures looking to resuscitation. Often simple measures suffice, but, again, it is only after the most assiduous attention that we are rewarded by the first feeble evidences of an independent existence.

Among the different means of restoring asphyxiated infants, artificial respiration, after the manner of Hall or Sylvester, has long held a foremost place, and been successfully resorted to after the failure of other measures. More recently another plan, that of Schultze, has come into notice; and as it may be unfamiliar to many practitioners, and is undoubtedly of value, the following description will, perhaps, be acceptable:

"The operator seizes the child under the arms, the index finger of each hand in the armpit, the thumbs over the anterior portion of the trunk, the remaining fingers placed along the back, which is turned to the operator, while the head is steadied between the palms of the hands. As the operator stands, the child, so held, is allowed to swing between the outspread knees. The tractions thus made in both directions upon the ribs, by the pectoral muscles above and the abdominal muscles below, produce the widest separation of the ribs, while the weight of the liver causes descent of the diaphragm, and thus inspiration is produced. Next, with extended arms, the operator swings the child upward until the breech and legs fall forward toward the abdomen. When the body is thus doubled up, the ribs close together, the diaphragm is pushed upward and forcible expiration takes place, driving out through the mouth and nostrils great quantities of mucus and fluids—when respiratory movements have taken place prior to birth—from the air-passages. Still keeping the arms extended, the child should be allowed, after a few moments (?) to swing back between the legs. In this way expiration and inspiration are to be maintained until spontaneous respiration occurs. As the temperature is apt to fall during the swinging movements, warm water should be kept handy, in which to occasionally plunge the child."

We desire to call attention to another method, the value of which we have, on more than one occasion, demonstrated to our intense satisfaction, and which has, we think, advantages over that just detailed, in being more simple, seemingly not so rough and we judge equally efficacious.

We disclaim originality. Credit in that direction is due to Prof. Harvey L. Byrd, of Baltimore, who, in an article entitled "A 'Speedy Method' in Asphyxia," published in the *Baltimore Medical Journal*, November, 1870, and reprinted in the half yearly *Compendium of Medical Science*, January, 1871, described its *modus operandi*, and cited cases confirming its value.

The method we present has, however, some modifications of Dr. Byrd's, and is as follows:

The infant upon its back, firmly grasp the outer thigh, the index finger and thumb encircling, and the inner limb resting on the forearm, while the little finger is extended as far as possible up the back to form a fulcrum with the corresponding finger of the opposite hand. In the hollow formed by the thumb and forefinger of the right hand allow the neck of the infant to rest, with the palm under the shoulders and the little finger extending down the back to meet its fellow of the other hand. Now, gently and regularly depress the vertex and inferior extremities as much as practicable below the horizontal, say forty-five degrees, thus facilitating inspiration, and, after a proper interval, elevate them to the same extent, forming a concavity of the chest and thereby forming expiration. Continue these movements without interruption, taking care to permit no impediment to the exit and entrance of air during the upward and downward movements of the head and chest, and also exercising caution against too much lateral motion of the head during their continuance. The conjoined use of Desormeaux' douche, or a little cold water dashed occasionally on the epigastrium, will tend to enhance the efficacy of this method; indeed, its employment not at all precludes the use of whatever auxiliary measures may be deemed advisable.

In Prof. Byrd's plan the ulnar edges of the hands are placed in contact to form the fulcrum beneath the infant's back, the thumbs extended and the radial borders being alternately elevated and depressed. Simulate the normal respiratory act. Modified as above, its advantages are: a much firmer hold of the body is obtained, thereby diminishing the chances of slipping; it is less fatiguing to the operator, and it obviates a necessity for an attendant to prevent any considerable departure of the head from its antero-posterior axis with the vertebral column.

We speak whereof we know regarding the efficacy of this method, having had ample evidence in that direction. Among other cases, notes of a remarkable instance of infantile asphyxia, in which it was, we confidently believe, the life-saving instrumentality, not only in establishing respiration after a notably protracted absence, but in maintaining existence through a perilously prolonged narcosis, go far in substantiating the statement of its originator, that "it is, *par excellence*, the remedy in the asphyxia of newly-born infants."

We have met those of large experience who were unacquainted with it. In the hope that it may be given a wide publicity, and its merits made available, we represent and commend it to the profession.

Progress of Medical Science.

Seegen on Diabetes Mellitus.—The following is a summary of Seegen's views which have appeared in the form of a notice of his recent work in the *Berliner Klinische Wochenschrift* for April 26th, 1875:—With our present chemical and physical resources we cannot determine the existence of sugar in healthy human urine, and we must therefore express the opinion that such urine does not contain sugar. Consequently any excretion of sugar in the urine which is not merely momentary and due to transient causes is pathological. A distinction between diabetes mellitus as a disease, and mellituria as a harmless exaggeration of a physiological process, is not justifiable; even the most moderate excretion of sugar, if it be continuous, may occasion all the symptoms belonging to diabetes mellitus. The excretion of sugar is the result of an anomalous conversion of the glycogen of the liver into sugar. There is no direct excretion of the sugar taken with the food. There are two forms of diabetes dependent on the source of the glycogen, viz.: first, when only the glycogen formed from the hydrocarbons is converted into sugar; and, second, when the glycogen which arises from the splitting up of albuminates is so converted. In the first form, therefore, there will be an excretion of sugar only when hydrocarbons are introduced into the system, while in the second it may take place even with an exclusively animal diet. The explanation of this anomalous conversion is generally referable to pathological changes and lesions in the region of the central nervous system, whatever may be the immediate cause of the sugar-formation. There is a peculiar connection between an excessive formation of fat, and the excretion of sugar; so that, especially in young persons, the formation of fat is sometimes observed as an early stage in severe cases of diabetes. The symptoms of diabetes may be divided into two groups, viz.: first, those due to the presence of sugar in the blood and fluids of the various tissues; and, second, those caused by defective nutrition resulting from the anomalous conversion of matter. The degeneration of the tissues is never the cause, but rather the result, of diabetes mellitus. An inherited tendency to the disease is not infrequently proved. That form of the disease is the milder where the sugar is secreted only after the ingestion of hydrocarbons. Its course is most favorable when there remains a degree of tolerance of amylaceous articles, while that form reaches a fatal termination much more rapidly in which sugar is formed on a diet of albuminates. He has never observed a cure of diabetes in the sense that amylaceous articles could be eaten in great abundance without occasioning the excretion of sugar. The prognosis depends first upon the form of the disease; second, upon the age of the patient; third, upon the ability to partake freely of animal food; and fourth, upon the temperament. In the treatment the regulation of the diet is the first and most important factor. Alkalies and alkaline mineral waters have hitherto proved to be the best remedies. The use of the Carlsbad water always has a favorable effect upon the symptoms. While it may not check the excretion of sugar, its favorable action in the milder forms is by increasing the tolerance of the hydrocarbons. Of all known remedies, opium and its preparations have the most decided influence on the excretion of sugar, even in very severe cases. The effect, however, is only exceptionally lasting.

Dilatation of the Œsophagus.—Mr. Henry Davy reports the following case of this rare disease. A gentleman living in the country, while lifting a heavy weight, gave himself a severe strain, and felt, he said, that something gave way inside of his body, and from that time until September, 1869, he then being thirty-eight years of age, the following symptoms were developed. He stated that for the past ten years he had experienced difficulty in swallowing, nausea and vomiting very soon after taking food, and especially after breakfast. At times he would feel better than at others. For years he had not been able to sleep on the left side, and when he did attempt it, he felt a smothering sensation, which was followed by the vomiting of large quantities of a slimy fluid, which was free from acidity and without a disagreeable taste. He had lost much flesh during this period.

Mr. Davy, on examination, found him complaining, on attempting to swallow, of a raking or tearing sensation, which was referred to the epigastrium. He also had a sensation of heat and burning extending over the course of the œsophagus, and he experienced an obstruction to the passage of food into the stomach about the ensiform cartilage, to the right side. The vomited matters consisted of glairy mucus. The sickness was in a great measure relieved by lying on his right side; his appetite was craving, and he suffered much from thirst. A pulsation could be felt over the epigastrium, like that caused by an aneurism. There was considerable pain on pressure and dulness on percussion in this situation. There were no other indications to indicate malignant disease. He was ordered the usual remedies to relieve the sickness, together with a fluid diet, but without effect. As the patient seemed to be sinking, nutrient enemata were then used, with very small quantities of liquid food by the mouth, but the latter were invariably rejected. This treatment was continued for a month, when he experienced a sensation in his stomach as if something had opened or given way, and felt the food pass down, which was followed by a copious discharge of fæcal matter from the bowels. After this he could retain the food in his stomach, and in a short time became quite convalescent.

For the next five years the patient was in apparently good health, and the only inconvenience he experienced was being obliged to take his meals in a semi-recumbent position, with his right arm over the back of a chair, having found this the only posture that would allow the passage of food into his stomach. In January, 1875, he had an attack similar to that described above, no food remaining on his stomach, and he died from inanition, after an illness of some ten days.

At the post-mortem examination, the œsophagus was found greatly dilated throughout its entire course, and measuring at the upper part of its lower third nine inches, and through the rest of its circumference above and below about eight inches. The muscular coat was very much hypertrophied. It contained about a wineglassful of fluid, which was prevented from entering the stomach by a twist at the cardiac extremity, at its passage through the diaphragm. Mr. Davy considers that this would account for the ease in swallowing when the patient stretched himself. The œsophagus was found to have a capacity of two pints, and its mucous membrane was found studded with several small ulcers.

The stomach was also found to be dilated, with a capacity of nine and a half pints. No evidence of any malignant disease could be found, and nothing to account for the pulsation felt during life over the epigastrium.—*Irish Hospital Gazette*, May 1, 1875.

Membranous Exudation in the Throat following a Scald.—At a recent meeting of the Clinical Society of London, Mr. R. W. Parker gave the history of a child, three years of age, that had put its mouth to the spout of a kettle, which was boiling on the hob, and from which steam was actually issuing at the time.

That same evening she could not swallow, though there was no difficulty in her breathing. There was no change in her respiration until the end of three days after the occurrence, when it became labored, and a croupy cough was noticed for the first time. On the sixth day she was admitted to the Hospital for Sick Children, when she was found to be in a very low condition, her voice gone and her respiration very rapid. The mouth was examined, and all that could be discovered was a small patch of membrane on the posterior wall of the pharynx. An ice-bag was applied to the neck, but as there was no amelioration in the symptoms at the end of a couple of hours, tracheotomy was performed. Two long pieces of membrane were removed by means of a feather, one of them tubular, and about the size of a crow-quill. She was greatly relieved by the operation, but her general condition rapidly became worse, and she died thirty-six hours later of blood-poisoning and exhaustion.

At the post-mortem examination two small erosions were found on the hard palate, at its junction with the soft. The anterior surface of the soft palate was normal; its posterior surface was rather swollen and mammilated in appearance, from swelling of the glands of its mucous membrane. A small patch of membrane was found on the base of the uvula, one just above the left arch of the palate, and another on the posterior surface of the pillars of the fauces; these pieces were not perfectly separable from the mucous membrane. The epiglottis was covered with membrane, and was thickened and swollen, as were also the aryteno-epiglottic folds. The tracheal mucous membrane was red and injected, and coarsely granular in appearance; and this appearance extended as far as the tertiary bronchi. In some of the bronchi, pieces of thin, reddish, well-formed membrane were found. The lips, tongue, and tonsils were normal.

An interesting discussion followed as to whether the membranes in this case were the result of the inhalation of the steam, or were of a diphtheritic nature. Mr. Parker believed that they were diphtheritic, and claimed that the post-mortem evidences sustained his view. Dr. Dickinson narrated instances in which membranous exudations in the air-passages could be directly traced to scalds, wounds, and mechanical irritants.—*British Medical Journal*, May 1st, 1875.

Aids to Diagnosis in Syphilitic Nervous Disease.—Dr. Dreschfeld calls attention to the following points, which will aid the practitioner in determining whether a nervous disease is of syphilitic origin. They are as follows:

1. Age of patient. The age of persons affected with syphilitic nervous disease ranges between 25 and 40: out of ninety-six collected by Brans, sixty were of patients between 20 and 40 years old; the cases given by Broadbent, Buzzard, and others, exhibit the same proportions.

2. A syphilitic history. This, he says, is often difficult to obtain, especially in women; often when the syphilitic virus selects for its locality the nervous system, there are few, if any, secondary symptoms; while, on the other hand, nervous troubles coming on in a syphilitic patient may be simply due to a coincidence. In many recorded cases, certain forms of syphilitic nervous disease are much more often preceded by well-marked secondary symptoms than others; this being true, he says, of syphilitic epilepsy and the more acute cases of meningitis, which come on soon after infection.

3. Multiplicity of lesion. Nervous symptoms which can only be accounted for by the assumption of separate pathological products situated in different parts of the nervous system, are almost always due to syphilis.

4. Absence of other causes. This applies particularly to the paralysis of the different cranial nerves, and to sudden attacks of hemiplegia in young persons, in the absence of any cardiac or renal troubles.

5. Influence of anti-syphilitic treatment. In many cases, where the course of the nervous disease is acute, and where the patient has not previously undergone an anti-syphilitic treatment, the effects of the iodide and the mercury are very marked. In the more chronic cases, however, where the syphilitic deposit has itself undergone degenerative changes, and has established secondary changes in the surrounding nerve-matter, the treatment will, of necessity, be of little avail.—*The Practitioner*, May, 1875.

Administration of Chloral and Bromide of Potassium by the Rectum.—Mr. Griffith, of London, has published his notes of a case of acute puerperal mania, in which the patient became so violent on any attempt being made to give her food, draw off the urine, etc., that he was obliged to administer chloroform in all such cases. Food had to be administered by the rectum on account of the irritability of the stomach. Chloral ʒ ss. and bromide of potassium ʒ j. mixed with an egg, milk, and brandy injection which she had previously been taking, produced good results in allaying the mania. Mr. Griffith thinks that in many cases this method of administering these drugs will be found useful, as there is less liability to vomiting than in giving them by the mouth, and in this case no diarrhœa or other irritant effect was produced on the bowel. He also reports the case of a lady suffering from the passage of gall-stones, in whom the inhalation of chloroform and hypodermic injections of morphia and other remedies had failed to secure rest and sleep, while they were obtained in a short time by the injection per rectum of half a drachm of chloral.

He has also used the drug in this way in cases of menstrual pain and sickness, in uterine and ovarian irritation attended with pain, and also in some rectal diseases.—*British Medical Journal*, May 8th, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE PRESBYTERIAN HOSPITAL AFFAIR.

The longer the managers of the Presbyterian Hospital delay an answer to the protest of the sixty physicians, the more difficult appears to be the task. The request to show some cause for the virtual dismissal of four members of the medical staff was on its face so reasonable, and appealed so directly to a sense of fair dealing, that the failure of the managers to comply is the most extraordinary feature of the whole proceeding.

We cannot believe that these managers would be guilty of any act of which they would be ashamed, or that they would have made any such radical change in the Medical Board without due consideration and without good reason, aud yet what are we to think of their persistent silence when asked to assign a cause for their action by gentlemen who believe themselves injured thereby? The very failure to answer gives a color to the suspicion that the cause is not such a good one as they might wish it to be. The managers have the absolute power of appointing the staff, and in accordance with the rules and regulations of the hospitals, of changing it every year by a formal election. No one can question their right to do so, but there is some middle ground upon which the managers and medical board should meet, where there should be an honorable understanding of mutual dependence and a manly consideration of the rights of each. The managers having all the power, can at least afford to be magnanimous.

How much better it would have been if this board had stated to the gentlemen who were not likely to be re-elected, the charges that had been brought against them, and extend to them the ordinary courtesy of an invitation to resign. This was a little matter of form, for the neglect of which the managers have merited the censure of the profession, and given the management of the hospital a far from enviable notoriety.

The deposed gentlemen may or may not have merited the punishment which they have received. but this is not the question at issue. The profession merely view these gentlemen in the light of exponents of a principle, the vindication of which is dear to every one who holds a hospital appointment, or expects to be a candidate for such a distinction. It is the question of right which any managing board has of ignoring past services of a medical staff, of publicly severing their connection with a hospital without the acknowledgment of any obligation to state the reason therefor. The profession has a right to feel a deep interest in this matter, as it involves the surrender of reputation, respectability, and individual rights, into the keeping of men who are not willing to acknowledge their worth, even if they may admit of their existence.

If the managers are satisfied that they acted for the best interests of the hospital, it is right, in their own behalf, and in behalf of the institution, to say so; if, on the contrary, they have done an injustice to their medical staff, it is also right that they should say so; but by a persistent silence both parties are injured. The trustee party, however, must suffer the most. It is in the power of the trustees to answer a very reasonable request, and a persistent determination not to do so forces even an impartial observer to the conclusion that their motives may not be above question, nor their appreciation of justice above that of ordinary men.

It is useless to assert that this is a matter which does not concern the profession. In this the managers are very much in error, as the protest of the sixty representative physicians very clearly proves. Professional sentiment is not narrowed to those signing that paper, but is extending itself into all the associations represented by each of these gentlemen, and the board of management of this or of any other hospital may yet learn to its sorrow that it is not so dignified that it cannot afford to be courteous, so influential that it cannot be reasonable, so powerful that it need not be just.

That the protest of the sixty outsiders is not a blind endorsement of the four gentlemen who have been displaced, is evident from the fact that the majority of the old medical board of the hospital have signed protests of similar import, and presented them to the managers. This being the case, if the managers persist in refusing to consider the protests in question, there is, it seems to us, but one of two courses for the staff of the hospital to pursue—either to resign, or to give some good reason why they remain. From what we know of the gentlemen who took the four places, we are free to say that they must have satisfied themselves that it was right and proper so to do; but they also, under the circumstances, owe it to their brethren either to state the reasons for their acceptance of the positions, or to resign. Altogether, the present medical staff has been forced into a very undesirable position—one which involves a good deal of responsibility to the profession. It is nothing more nor less than the vindication of a principle, and their brethren are anxious to know if they are equal to the occasion. The next meeting of the board of managers will determine whether any answer will be made to the protests, and if none is offered, the time will have arrived either for a general explanation from the staff, or a general resignation.

Reports of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

First Session, held at New York City, June 2, 3, and 4.

WEDNESDAY, JUNE 2D—FIRST DAY.

THE Association was called to order by DR. E. C. SEGUIN, Secretary of the Committee on Organization, and upon motion, Dr. J. S. Jewell, of Chicago, was elected temporary chairman.

The roll of members contains the following names:—Drs. J. S. Jewell, Walter Hay, and H. M. Bannister, of Chicago; Dr. R. Bartholow, of Cincinnati; Dr. J. K. Bauduy, St. Louis; Dr. M. Burnett, of Knoxville; Dr. E. R. Hun, Jr., of Albany; Drs. E. H. Clarke, R. T. Edes, J. J. Putnam, S. G. Webber, and F. D. Lincoln, of Boston; Drs. S. Weir Mitchell, Wm. Pepper, and H. C. Wood, Jr., of Philadelphia; Drs. J. Van Bibber and F. T. Miles, of Baltimore; Dr. H. D. Schmidt, of New Orleans; Dr. F. D. Lente, of Cold Spring, N. Y.; Dr. J. C. Shaw, of Brooklyn; Drs. W. A. Hammond, Meredith Clymer, E. C. Seguin, T. B. M. Cross, J. J. Mason, F. K. Kinnicutt, A. D. Rockwell, D. B. St. John Roosa, A. McLane Hamilton, E. G. Loring, J. C. Dalton, J. W. S. Arnold, N. B. Emerson, T. A. McBride, and J. S. Lombard, of New York.

After the calling of the roll, DR. T. A. MCBRIDE, of New York, offered the following resolution:

"It being the sense of this Association that its proceedings should be reserved for the profession and the medical press, be it

"*Resolved*, That reporters from non-medical journals be excluded from the meetings of the Association; and that any information requested by the press be furnished by the Secretary under the guidance of the officers of the Association." Adopted.

CONSTITUTION AND BY-LAWS.

DR. CLYMER, of New York, from the Committee upon Organization, submitted the following Constitution and By-Laws for the consideration of the Association:

I. This Association shall be named and known as "The American Neurological Association."

II. It is established to promote the study of Neurological Science in all its departments.

III. There shall be two sorts of members, namely, active members—not exceeding at any one time fifty in number, and who shall be at the time of their election residents of the United States—and foreign associate members, not exceeding at any one time twenty-five in number, and who shall be non-residents. Active and foreign associate members shall be elected by ballot on the recommendation of the Council, on one day's previous notice of such ballot, by a majority of all the members present.

Provided, that no one shall be eligible for active membership unless he has previously submitted a paper on some subject connected with neurological science, which paper shall be referred to the Council for examination and report. Active members only shall be entitled to vote at any meeting, or be eligible to any office.

IV. The officers of the Association shall be a President, two Vice-Presidents, a Corresponding Secretary, a Recording Secretary, who shall perform the duties of Treasurer, and a Curator. They shall be nominated by a Committee of Nominations of five members, appointed by the President on the first day of the annual session, and who shall report on the day following, immediately after which the election shall take place. The election shall be by ballot, and the person who shall have the greatest number of votes shall be declared elected to the office for which he may be a candidate.

In case of a vacancy occurring in any office between the dates of the annual election, it shall be filled by the Council until the next annual election.

The officers shall enter upon their duties immediately after the organization of the annual session next after their election, and shall hold office for one year.

Provided, that the officers of the first session shall be elected immediately after the organization of the Association, and shall hold their offices until the election at the second annual session.

V. The Council shall consist of the officers of the Association, shall manage the affairs of the Association, subject to the Constitution and By-laws, and shall report to the Association at large at each annual session.

VI. The annual session of the Association shall be held on the first Monday in June in each year, and at such place as shall be designated by the Association at the previous annual session, and shall continue for three days, unless the time be extended by a vote of the Association.

VII. This Constitution may be amended by a two-thirds vote of all the members present, at any annual session, provided that notice of said proposed amendment in writing be given at the annual session immediately preceding.

BY-LAWS.

1. Each and every member of the Association shall pay annually to the Recording Secretary the sum of five dollars.

No member who shall be in arrears for one year shall be entitled to vote, or be eligible to any office in the Association.

2. The officers of the Association shall discharge the duties belonging to their respective offices. The President shall be ex-officio chairman of the Council.

3. The Council shall meet as often as the business of the Association may require. They shall keep a record of their proceedings, which shall be read at the annual session of the Association. They shall not have power to make the Association liable for any debts exceeding in total the sum of one hundred dollars in the course of any one year, unless specially authorized to do so by a recorded vote of the Association.

4. The order of business at each meeting of the Association shall be as follows:

5. The titles of all papers to be read at any annual session shall be forwarded to the Corresponding Secretary not later than one month before the first day of the session. All papers that may be read before the Association and accepted shall become the property of the Association, and their publication shall be under the control of the Council. All publication of the meetings of the Association shall be under the direction of the Council.

6. These By-Laws, or any one or more of them, may be amended, or repealed, or suspended by a two-thirds vote of all the members present at any meeting during an annual session, provided notice in writing of any proposed amendment or repeal has been given at the meeting immediately preceding the one at which the motion is made and the vote taken.

The Constitution and By-laws as reported were adopted.

The CHAIRMAN appointed as Committee on Nominations: Drs. Putnam, of Boston; Lente, of Cold Spring; Hun, of Albany; Seguin, of New York; and Hay, of Chicago.

A recess of fifteen minutes was taken, and when the Association was called to order, the committee made the following report:

ELECTION OF OFFICERS.

For President: Dr. S. Weir Mitchell, of Philadelphia.

For Vice-Presidents: Dr. J. S. Jewell, of Chicago; Dr. E. H. Clarke, of Boston.

For Corresponding Secretary: Dr. J. J. Mason, of New York.

For Curator: Dr. J. W. S. Arnold, of New York.

For Recording Secretary and Treasurer: Dr. E. C. Seguin, of New York.

Upon motion of DR. HAMMOND, the Secretary was instructed to cast the vote of the Association in the affirmative for candidates nominated by the committee.

In the absence of the President the first Vice-President, DR. JEWELL, called the Association to order, thanking the members for the honor they had conferred upon him, and expressed the desire that nothing should be done, or fail to be done, which would prevent the present session from becoming pleasant and successful. For the future of the Association he could see no reason why annual sessions could not be held, at which papers of real interest should be brought forth, full of usefulness in every way; stimulating the labors of those, both in this country and abroad, who are working in this special department of medical science. It was his hope that the Association, as a whole, would work earnestly for the advancement of everything which pertains to neurological science in its highest aspect.

Upon motion, the Association at once proceeded to the reading of papers.

The first paper of the session was read by DR. WEBBER, of Boston, and entitled

CONTRIBUTIONS TO THE STUDY OF MYELITIS.

The paper consisted essentially in the report of two cases, with autopsies and a description of the changes which had taken place in the tissues of the spinal cord, as observed under the microscope. They were regarded as cases—especially the first—which would contribute to prove that other parts than the anterior ganglion-cells are affected, either primarily or secondarily in a certain class of cases. From the clinical history, these cases were regarded as belonging properly under the class cited by Dr. E. C. Seguin, in a paper read before the New York Academy of Medicine, in November, 1874, under the head of "Acute and Sub-acute Spinal Paralysis, or Inflammation of the Kinesodic Tract of the Spinal Cord." They were not, however, looked upon as due primarily to lesion of the anterior cornua exclusively, and atrophy of the nerve-cells there situated; but the writer was inclined to believe that the first stage is one of congestion. The changes found were regarded as due to inflammation and destruction of the nervous elements of the spinal cord, fibres, and ganglion-cells. In the muscles all forms of changes were observed except the amyloid.

Discussion postponed until Thursday.

Upon motion of DR. LENTE, a Business Committee, consisting of the Secretary and two others, was appointed to arrange for the time of reading papers. Drs. Mason, of New York, and Hay, of Chicago, were appointed.

The Association then adjourned to meet at 2 P.M. June 3d.

THURSDAY, JUNE 3D—SECOND DAY.

The Association was called to order by Vice-President Jewell, and the minutes of the previous meeting read and approved.

DISCUSSION ON MYELITIS.

The first order of business being the discussion upon the paper read by Dr. Webber at the first session,

DR. PUTNAM, of Boston, remarked that he knew of no absolute sign which indicated the presence of congestion of the spinal cord, and inquired of Dr. Webber by what signs he would recognize that condition, and also whether congestion can exist to any extent in the spinal cord without being accompanied by nutritive changes? In other words, can we by any signs tell where congestion ceases, and actual change in structure begins?

DR. WEBBER, of Boston, replied that he supposed it would be exceedingly difficult to determine exactly where congestion ceases and inflammation begins. The physiological action of the spinal cord is such that its functions are more easily deranged by slight influences, as a deficient or increased supply of blood, than some other organs, but knew of no means to decide whether mere congestion or organic change is present at any given time. If the patient has symptoms referable to one or other condition, and recovers entirely, no symptoms remaining, we are perhaps justified in assuming that it was congestion that gave rise to these symptoms; but if any disturbance of function continues permanent, it is probable that the change which took place was organic.

DR. PUTNAM inquired still further whether the blood can be increased in the spinal cord without such increase being preceded by some influence upon the cord? He was not aware of any absolute proof of this, although he has no doubt that the blood of the spinal cord varies in amount, and varies according to the influences acting upon the vaso-motor system.

DR. HAMMOND, of New York, remarked that we have some proof in the way of analogy. It is a well-known fact that emotions influence the amount of blood over the face and chest, and what emotion can do to the face and chest it may do to the spinal cord. There is no difficulty in adopting the view that the brain and spinal cord may be subject to local congestion, but the actual proof is a far different question.

DR. MILES, of Baltimore, remarked that from the experiments of Van der Kolk it was quite probable a certain degree of hyperæmia was necessary to the proper performance of function, and that activity of function might accordingly indicate perhaps to some extent the amount of hyperæmia present; but he was of the opinion that it is not possible to draw a line of distinction to an extent which will enable us to determine where congestion ends and inflammation begins.

DR. E. C. SEGUIN, of New York, remarked that the two important points in the paper of Dr. Webber were, *first*, the pathological anatomy and possible connection between the symptoms and the lesions. For it is by such study that we are enabled to connect certain symptoms with certain morbid changes. In the second place, he regarded the two cases cited as radically different in nature. The second was one of localized myelitis involving every part of the cord. The first case had some very peculiar features, such as the wasting of the muscles and the absence of alteration in the nutrition of the skin, especially upon the buttocks, and he regarded it as a case of spinal paralysis of the adult. The diffuse myelitis in the white and gray matter of the cord he regarded as a valuable point in the pathological anatomy of the case.

Dr. Clymer, of New York, related a case of acute spinal paralysis, with the view of drawing special attention to the treatment adopted. The patient suffered at first from general malaise, with marked feebleness of the lower extremities, and slight feebleness of the left arm, and after five or six days he was completely unable to get out of bed. His tongue was coated and dry, skin dry, pulse 90, numbness and tingling of the extremities, etc. At first sight the case appeared like one of typhoid fever, but it lacked the peculiar physiognomy, the eruption, gurgling in the right iliac fossa, etc. The patient had been training himself for a foot-race, and had received a sudden check of perspiration.

Regarding it as a case of spinal congestion, he was cupped largely and freely over the cervical and lumbar vertebræ. On the following day the cupping was repeated, and followed by free blistering. The result was that the acute symptoms disappeared, all fears of fever were dispelled, but the paralysis remained in the lower extremities. The cupping was occasionally repeated with some counter-irritation, and after some weeks the down current was applied through the cord to the lower extremities, and the patient rapidly improved in his ability to walk. The atrophy of the glutei muscles, and the muscles of the left arm and the deltoid, was very decided. The patient is now able to walk without much imperfection in his gait. He was of the opinion that the case was one of congestion of the spinal cord, accompanied by some destruction of the cells in the anterior cornua, and believed that it would have gone on to the production of more serious changes, had not the treatment been actively antiphlogistic.

The second order of business was the report of a case of

SPINAL PARALYSIS WITH PARTIAL RECOVERY—BY DR. MILES, OF BALTIMORE.

The patient had been under the influence of excessive venereal excitement, had taken a sudden cold, and almost immediately found his left side partially paralyzed. In this condition, but with great difficulty, he came to Baltimore, and the day following his arrival. the other side became partially paralyzed. The third day he was absolutely paralyzed, except the muscles of the face and the muscles of deglutition. He was a living face with a body absolutely dead to all appearance. He suffered no inconvenience or pain. Sensibility remained perfect, and the sphincters were sound. The muscles responded to mechanical irritation as readily as normal. He remained in this condition for three or four days, when slight motion was noticed in the fingers, which gradually increased, and the movements of the arms were soon restored, and power gradually returned to all the muscles.

The treatment consisted in the use of cups along the back, iodide of potassium, bichloride of mercury, and the faradic current. No single muscle was left paralyzed.

When seen lately there was noticed to be a slight imperfection in walking, but he can walk without a cane or crutch. The interossei muscles of the hands and feet showed atrophy. The case illustrates how perfect paralysis of this sort may be and every muscle recover from its paralyzed condition. In the present case it is probable that the congestion has left its mark, and perhaps in certain places in the cord minute lesions of a hemorrhagic character have been produced.

Dr. Hammond asked whether reflex excitability was present or not.

Dr. Miles replied that there was none.

Dr. Hammond remarked that he believed all would agree that such cases of paralysis generally recover under appropriate treatment. The more sudden and intense the paralysis is in a case of that nature, the more apt it is to get well.

He then related a case where the patient fell perfectly paralyzed in every limb, and in that condition was brought to the city. When first seen, he also had facial paralysis. There was no evidence of syphilis. He was treated with large doses of iodide of potassium, bichloride of mercury, the galvanic current, where it would act, and the fluid extract of ergot. The patient recovered completely, and was as well as any one. He regarded the case as one of congestion, with very great effusion, and that with the absorption of the effused fluid the congested condition of the vessels disappeared, and the recovery naturally followed.

In Dr. Miles' case there seems to have been some more permanent lesion, but in my case the muscles are perfect, and the patient moved about perfectly well within six weeks after the attack.

ATHETOSIS.

Dr. Hammond, of New York, presented a case of this kind occurring in a man who has been the subject of epileptic paroxysms and a hard drinker. It was the original case upon which was based the description he had given of the disease.

The motions of the fingers *continue through the night*, and in this respect the description given must be modified.

Dr. Clymer mentioned a case seen more than thirty years ago, but at that time it was supposed to be choreaic in nature.

Dr. Jewell referred to a case accidentally seen, occurring in a girl who was epileptic. These movements had been going on for two or three years in the right hand, and were then slightly apparent in the left hand.

Dr. Hay referred to a case accidentally seen, of which he hoped to be able to obtain a history.

Dr. Cross, of New York, referred to two cases of the disease where the movements were upon the left side and were not preceded by epilepsy. In one case the patient was a female, and the movements were in the feet as well as in the hand.

Dr. E. C. Seguin reported a case occurring in a female 22 years of age, where the condition had been developed after infantile hemiplegia.

He also mentioned the fact that he had noticed in two cases what he had termed the athetosis-like state. In these cases, both boys, one about four and the other seven or eight years of age, there was hemiplegia of cerebral origin, and there was present a certain degree of secondary contraction in the paralyzed parts. They were unable to bend the contractured fingers when asked to do so, but there was an involuntary spasmodic action by means of which the fingers were opened, and opened beyond the normal extension.

In the case of the girl there was hypertrophy of the muscles.

Dr. **Webber** inquired whether the child opened the non-paralyzed hand at the same time the paralyzed one was opened.

Dr. **Seguin** replied that in one patient there was no such sympathetic movement in the opposite hand.

Dr. **Van Bibber** reported a case of right hemiplegia in a patient five years of age, in which complete recovery did not occur. There was present some secondary contraction, and also the condition referred to by Dr. Seguin. The muscles were hypertrophied in a remarkable manner.

TREATMENT OF PARALYZED MUSCLES BY ELASTIC RELAXATION.

Dr. **Van Bibber**, of Baltimore, read a paper upon the above subject, in which he set forth the physiological conditions which underlie the advantages claimed for this method of treating paralyzed muscles. The views of the writer can be found in the May number of the *New York Medical Journal* for 1873, together with cases.

Drs. **Seguin** and **Hammond** bore testimony to the efficacy of this plan of treating paralyzed muscles, and regarded it as of special benefit in the treatment of facial paralysis and paralysis from lead poisoning.

Dr. **N. B. Emerson**, of New York, referred to the relation existing between electro-muscular contractility and tension as a possible explanation of the benefit derived from this plan of treatment. When the origin and insertion of a muscle are approximated, a much less amount of electric influence is required to cause muscular contraction.

Dr. **Seguin** regarded this as a point of considerable practical importance, and reported a case in which no response could be obtained to the galvanic current from the muscles in the anterior tibial region, and it was suspected that the stretched condition of the muscles resulting from a double talipes equinus was the reason why no response could be obtained. Tenotomy was performed, and on the fourth day after the operation, the muscles having been relaxed, there were distinct muscular contractions in response to the galvanic current, which continued to improve. The operation was done in 1871.

INJURY OF THE BRACHIAL PLEXUS.

Dr. **Putnam**, of Boston, reported a case in which the arm had been forced into extreme extension by the premature discharge of a cannon. The arm was severely burned, but there was neither fracture nor dislocation. Complete discoloration of the skin took place, and the limb became blue. Almost complete recovery has now taken place, as far as the ulnar nerves are concerned, and as far as sensation goes in the parts supplied by musculo-spiral. The only parts now remaining cyanotic, are those supplied by the median nerve. It was interesting to notice that when the cyanotic parts were rubbed very lightly that the discoloration would disappear and the skin remain of its natural color for some time, showing that some influence was exerted upon the vaso-motor nerves by the manipulation, and is probably due to reflex action through the median nerve. The disappearance of discoloration would seem to indicate dilatation rather than contraction of the vaso-motor nerves. The principal point of interest was the extent of the injury done to the brachial plexus by forcible extension of the arm. Galvanic current is the only treatment resorted to.

Dr. **Hay**, of Chicago, referred to a case of injury to the brachial plexus without dislocation or fracture. The lady fell from a balcony, striking upon her extended left hand and arm; there was some numbness and dull pain about the arm, which was so aggravated, after about forty-eight hours, that a surgeon was called, upon the supposition that some dislocation or injury of surgical character had been sustained which had been unrecognized. At the end of eight weeks the arm was entirely motionless, fingers extended and paralyzed and in close apposition with each other, and the patient suffered severe pain between the shoulders, in the neck, arm, forearm, and down the fingers. After eleven weeks had elapsed considerable atrophy of muscles was manifest, and the forearm had diminished in size one-third; interossei muscles disappeared rapidly; skin became white and glistening.

Notwithstanding the severe pain upon motion, there was anæsthesia. The treatment consisted of blisters along the course of the cervical and brachial plexuses, with strychnia and cod-liver oil, etc. An almost complete recovery took place.

Dr. **Jewell** referred to the reflex vaso-motor action as an interesting point in Dr. Putnam's case, and regarded the case as one of an instructive class, illustrating the ease with which a sensation can be introduced into a nerve-trunk and conveyed if you please to the vaso-motor centre, and from that an answer sent out.

Dr. **E. C. Seguin**, of New York, reported additional cases of injury of brachial plexus, and drew special attention to a point in diagnosis, the observance of a symptom which has escaped observation entirely in this country, and has been mentioned by only one or two observers abroad. He had based this symptom upon observations made in two cases. The symptom which attracted attention was contraction of the pupil upon the same side of the injury to the brachial plexus. In both cases, the pupil in a moderate light did not dilate to the full extent, and resembled the pupil of the general paralysis of the insane, or of locomotor ataxia at certain stages. It was a fixed and moderately contracted pupil. This paralysis represents in a moderate degree the paralysis of the sympathetic nervous system, and was probably produced in the cilio-spinal centre and its ramifications upward. The exact mechanism of this pupillary contraction is obscure, but he was inclined to the opinion that it could be most satisfactorily explained upon the inhibitory principle.

This sympton may be of possible service in making out obscure cases of injury about the shoulder. It would be interesting also to determine the exact point in the brachial plexus, an injury of which will produce this distant vaso-motor paralysis.

Dr. **Hammond** inquired whether contraction had been noticed accompanying paralysis induced by *pressure* upon the brachial plexus. He related one case where paralysis was produced in that manner, and the pupil upon the affected side was permanently contracted either in the light or dark. Motion in the arm was almost entirely destroyed and sensibility to a great extent. He regarded the case as interesting from the fact that probably there was no tearing of the structures, but the effects were due alone to pressure.

Dr. **Seguin** remarked that the case just related goes to strengthen the proposition that contraction of the pupil is evidence of actual gross injury. He was of the opinion that the pressure produced by the back of the chair caused a separation of the myelin; there may have been severance of the axis cylinders. The non-recovery of the patient shows that there must have been secondary degeneration beyond the point of severance. The physiological separation in such cases is the same, whether produced by pressure, or by laceration, or by the knife.

Dr. McBride referred to a case similar to that mentioned by Dr. Hay, in which there was no pupillary contraction present. He also referred to a case where a large tumor was present upon the side of the chest, and contraction of pupil was noticed; and another case of old dislocation of the shoulder accompanied by small pupil upon the same side.

Dr. Kinnicutt recalled a case in which the symptoms indicated severe injury to the brachial plexus, and yet there was no pupillary contraction present.

Dr. Putnam referred to the fact that inequalities of the pupil had been noticed in connection with various diseases of the chest.

Dr. Jewell mentioned a case where not only contraction of the pupil was present upon the same side of the injury, pressure from a crutch, but there was also flushing of the same side of the face, and the temperature was also elevated upon that side. Another case was alluded to in which there was inflammation of the upper lobe of the right lung, accompanied by a similar phenomenon, and there was also left a marked degree of tenderness over the inferior cervical ganglia, and pressure upon this ganglia produced immediate sweating upon the right side of the face, the pupil contracted, and the patient at once experienced vertigo. These symptoms gradually disappeared.

Dr. Hammond remarked that he had long since come to regard inequalities of the pupil as of no special significance, unless accompanied by other symptoms, and referred to a case in which contraction of the pupil was produced by a seton in the neck, and kept up as long as the seton remained.

NERVE INJURY—CUTANEOUS ERUPTION.

Dr. Van Bibber reported a somewhat remarkable case, in which a needle had been thrust into the arm of a woman, where it remained two months, and then was extracted, without giving any special amount of pain. The next day a crop of bullæ appeared upon the arm, which was followed by successive crops of like character, accompanied with great pain, and the pain preceded the appearance of the eruption. These eruptions continued until the arm, from the insertion of the deltoid down to the wrist, became one continuous sore. When the bullæ broke or were opened they left behind open ulcers that showed no tendency to heal, and were more or less covered with hemorrhagic spots. There was anæsthesia over the entire region of the median nerve, and marked paralysis associated with lesions affecting the wrist and elbow joints.

Under the use of the constant current the bullæ at once began to disappear, and showed no tendency to return, and within three weeks the arm was free from the eruption. When the pain recurs the galvanic current stops it at once. Since the improvement scattered bullæ have appeared upon the face and about the head.

Dr. Jewell cited a case of zoster affection, occurring in a woman weighing about 300 pounds. She was seized with great pains in the region of the uterus, which extended into the inguinal region, and so into the back. These were soon followed by chills and burning pains in the skin, following the course of the crural nerve, and finally red lines appeared over the tract of the irritable and painful nerves, which were followed by a herpetic eruption, and the blisters were always preceded by the pain, and they extended from the hips downward. The irritation continued until the trouble about the uterus began to get well. There was a clear connection between the severe congestive trouble about the uterus and pelvic irritation and the cutaneous eruption.

Dr. Webber inquired whether there was any pelvic cellulitis present.

Dr. Jewell replied that there was none at all, and that the trouble was entirely reflex.

Dr. Hay referred to the case of a gentleman, who had been in the habit of wearing his pantaloons without suspenders, and after a while became afflicted with pains, which extended down into the hip and testicle. The pain recurred daily, and was always relieved by change to the horizontal position, and would immediately disappear when he went to bed. The man did not obtain any relief by treatment, and his case came to be regarded as one of incurable neuralgia of the testicle. About three years ago a herpetic patch made its appearance upon the inside of the thigh, upon the same side, which became worse during the day, and reached its maximum at night, and was almost entirely well again in the morning. This condition of affairs continued, and one day, while examining his patient, he suggested to him to wear a pair of suspenders. He at once put a pair on, and within forty-eight hours his pain entirely disappeared, and with it the herpetic patch. It was regarded as a clear case of reflex neurosis.

Dr. Miles referred to his own thigh, which was once corded sufficiently tight to produce anæsthesia for some time. He afterwards contracted chills and fever, but the leg below the spot where the cord was placed never got chilly.

Dr. Jewell remarked that there were two important points in these cases with regard to pathology. If the nerve has been injured, the question arises, How is the trouble produced in the skin? Is it by the production of neuritis, or is it by irritative influence, without respect to neuritis, transmitted along the nerve in such a manner as to irritate beyond the normal nutritive action? In many cases the explanation must be by the last method.

The next paper was read by Dr. Rockwell, of New York, entitled, "A Survey of the Field of Electro-Medicine, with special Reference to its Physiological and Therapeutical Relations to the Nervous System."

MISCELLANEOUS BUSINESS.

Dr. Hammond nominated for membership Drs. S. Oakley Vanderpoel, T. Edwards Clarke, and Clinton Wagner, of New York.

Dr. Mason nominated Drs. J. P. Gray, of Utica, and D. H. Kitchen, of New York.

Dr. E. C. Seguin nominated Dr. G. M. Beard, of New York.

The Association then adjourned, to meet at 2 P.M., June 4th.

Friday, June 4th—Third Day.

The Association was called to order at 2 P.M. by Dr. Jewell.

ANALYSIS OF A CASE OF CIRCUMSCRIBED ANALGESIA OF THE SKIN AFTER TYPHOID FEVER.

Dr. Putnam, of Boston, read a paper containing such analysis, and based his remarks upon a case of typhoid fever occurring in a male patient 18 years of age. A short time after his *apparent recovery* he noticed that slight wounds of the left hand healed only very slowly, and that certain injuries to the hand and arm gave rise to no pain. When examined, it was found that the skin upon the left arm, shoulder, left side of the trunk, and neck, up to the median line of the body, and downward to the eighth rib, was in a condition of anæsthesia. The hand could be thrust into water of a temperature of 110° F. without inconvenience, and a pin thrust into the skin failed to cause pain. A light touch, as with a brush, on the tips of the fingers was almost invariably recognized. When the skin was sprinkled with water, each drop could be distinctly felt. His hand could be retained in water at 120° F. about two minutes, and in water at 160° from two to ten seconds.

At present the left side of the neck has recovered to quite an extent. The case was regarded as one of partial paralysis of sensation, the immediate consequence of the acute attack of typhoid fever, and was probably of peripheral origin. It was thought to be peripheral chiefly because of its definite localization. He did not, however, wish to throw out of the question the cerebral element in studying the case.

Dr. Seguin expressed the opinion that the cerebral element should be left in the problem, and from our present knowledge of hemiplegic analgesia, such as is manifested in hysterical women, hypnotism, and certain conditions produced while inhaling anæsthetics, he inclined to the opinion that the real cause of the conditions noticed in Dr. Putnam's case was due to some encephalic trouble.

NEW DYNAMOMETER.

Dr. A. McLane Hamilton, of New York, exhibited a new dynamometer in which a rubber bulb is substituted for the spring in the instrument in common use. The instrument consists simply of a rubber bulb containing a colored fluid which is attached to a glass tube, having an index. The principle is that it requires a certain amount of pressure to condense the air in the tube above the fluid, which is marked upon the index.

FRACTURE OF THE ODONTOID PROCESS.

Dr. Hun, Jr., of Albany, presented a specimen removed from a woman, æt. 50 years, accompanied with a history of previous injury which caused her to lie insensible for several hours, after which she awoke and walked some distance, ascended a flight of stairs, etc. There were no convulsions or tremors, but there was almost complete anæsthesia of the legs. She rode to the Alms House, walked from the wagon to the house, walked up-stairs, and seemed to have no inconvenience in so doing. She remained in the Alms House a few days, and died. At post-mortem the odontoid process was found to be fractured without rupture of the transverse ligament, the atlas dislocated from the axis, and the condyles upon the left side fractured in three places. The patient was not any time completely paralyzed.

NEURALGIA AND OTHER NEUROSES ARISING FROM CICATRICES OF THE SCALP, AND THEIR SURGICAL TREATMENT.

Dr. Lente, of Cold Spring, N. Y., read a paper upon the above subject, in which he referred to several remarkable cases of neuralgia, amaurosis, and other visual disturbances, which had been completely and rapidly cured by the excision of old cicatrices upon the scalp. He argued that more should be done than simply to incise the cicatrix, and that it should be removed.

PIGMENTARY DEPOSITS IN THE BRAIN AS THE RESULT OF MALARIAL POISONING.

Dr. Hammond, of New York, presented a paper upon the above subject, in which he gave the results of clinical observation and experiments upon animals. He regarded the pigment in these cases as being of *splenic* origin. He was of the opinion that, especially in malarious districts, many nervous disorders were induced by the deposit of this pigment in the brain.

Dr. Miles, of Baltimore, spoke of the effect upon the nervous system noticed as the result of malarial poisoning, and cited one case where the chill was represented by an epileptic paroxysm which was followed by the fever and sweating in their regular order.

HEMIPLEGIA WITH CLOT UPON THE SAME SIDE OF THE BRAIN.

Dr. Hay, of Chicago, presented an interesting specimen of this kind, removed from a female patient æt. 55 years, in whom there was hemiplegia of the left side, face not involved, and the tongue could be protruded without deflection. The patient jumped from a railroad train which was moving at a rapid rate and was picked up insensible, in which condition she remained for about three weeks. She suffered from incontinence of urine and fæces. At post-mortem a meningeal clot was found over the frontal convolution upon the left side of the brain, about a line in thickness, three-fourths of an inch in length, and about the same in width. No morbid conditions were found in any other part of the brain, and the clot was limited to this region.

Dr. Hamilton remarked that he had produced convulsions in animals upon the same side of the body with the irritation produced in the brain.

At this hour the Association passed to the transaction of miscellaneous business.

Dr. George M. Beard was recommended by the Council for membership, and elected by the Association.

A communication from Dr. S. Weir Mitchell was read containing his resignation as President of the Association, whereupon Dr. Clymer, of New York, offered a resolution elevating Dr. J. S. Jewell, of Chicago, to the Presidency as if reported upon by the Committee on Nominations, which was unanimously adopted.

The Council made a report by which Dr. E. H. Clarke, of Boston, was made first Vice-President, and Dr. F. D. Miles, of Baltimore, second Vice-President, which was accepted and adopted.

Dr. Hammond withdrew the nominations which he had made at the previous meeting, and offered the following resolution:

Resolved, That, as the number of active members of this Association is limited to fifty, it is inexpedient to elect to membership superintendents of lunatic asylums, but that in this action the Association does not wish to depreciate the labors of these gentlemen, and is further influenced in this action by the fact that there is already an association composed exclusively of superintendents of such asylums.

After considerable discussion the matter was referred to the Council for report at the next session of the Association.

Drs. Clymer, Hammond, and Hamilton were appointed as Committee of Arrangements to act in conjunction with the Council for the session of next year. It was decided to hold the next session of the Association in New York, commencing on the first Wednesday in June.

After passing the customary vote of thanks to the officers of the Association and to the Committee on Organization, the Association adjourned.

UNREAD PAPERS REFERRED TO THE COUNCIL.

A Note upon the Clinical Effects of Conium, by Dr. William Pepper, of Philadelphia.

The Structure and functions of the Ganglia on the

Posterior Roots of the spinal nerves; A Case of Insanity caused by Wound of the Brachial Plexus of Nerves; A Case of Diabetes Insipidus caused by Disease of the Meatus Auditorius Externus;—all by Dr. J. S. Jewell, of Chicago.

Contributions to the Study of Basal Meningitis, by Dr. T. A. McBride, of New York.

Insanity in Children following Masturbation, by Dr. Frank K. Kinnicutt, of New York.

Tables Showing the Results of the Use of Phosphorus in Neuralgia and other Painful Affections, by Dr. N. B. Emerson, of New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 30th to June 5th, 1875.

Randolph, Jno. F., Surgeon.—Relieved from duty at Camp Robinson, and assigned to duty at Fort D. A. Russell, Wy., T. S. O. 64, Department of the Platte, May 29, 1875.

Frantz, J. H., Surgeon.—Assigned to duty as Post Surgeon at Fort Preble, Me. S. O. 105, Military Division of the Atlantic, May 26, 1875.

Weeds, J. F., Surgeon.—Assigned to duty at Nashville, Tenn., as Post Surgeon. S. O. 71, Department of the South, June 2, 1875.

Loring, L. Y., Assistant Surgeon.—Granted leave of absence for one month. S. O. 38, Department of Arizona, May 18, 1875.

Harvey, Phil. F., Assistant Surgeon.—When relieved by Surgeon Frantz, assigned to duty at Fort Independence, Mass. S. O. 105, c. s., Military Division of the Atlantic.

Hoff, Jno. V. R., Assistant Surgeon.—Granted leave of absence for one month. S. O. 64, c. s., Department of the Platte.

Skinner, J. O., Assistant Surgeon.—Relieved from duty in Department of the Columbia, and to report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 111, A. G. O., June 4, 1875.

Hamilton, Jno. B., Assistant Surgeon.—Assigned to duty at Fort Colville, W. T. S. O. 64, Department of the Columbia, May 19, 1875.

Medical Items and News.

Ziemssen's Cyclopædia of Medicine.—On page 290 of vol. iii., second text line from the bottom, the word "ounces" should read "drachms." As the error might lead to serious consequences, we would thank our exchanges to give publicity to this notice.

Examination in State Medicine.—Cambridge University, England, has issued a programme for an examination in so much of state medicine as is comprised in the functions of officers of health, to be held in Cambridge, beginning on Tuesday, October 5, of the present year. Any person whose name is on the Medical Register of the United Kingdom may present himself for examination, provided he is twenty-four years of age.

The examination will be in two parts. Part I. will comprise—physics and chemistry, the principles of chemistry, the methods of analysis, with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat and the principles of pneumatics, hydrostatics, and hydraulics, with special reference to ventilation, water supply, drainage, construction of dwellings, and sanitary engineering in general. Part II. will comprise—laws of the realm, relating to public health, sanitary statistics, origin, propagation, pathology, and prevention of epidemic and infectious diseases, effects of overcrowding, vitiated air, impure water, and bad or insufficient food, unhealthy occupations, and the diseases to which they give rise, water supply, and the disposal of sewage and refuse, nuisances injurious to health, distribution of diseases within the United Kingdom, and effects of soil, season, and climate. All applications for admission to this examination, or for information respecting it, should be addressed to Professor Living, Cambridge.

A Zoological and Botanical Garden covering sixty-seven acres is about to be established in the northern suburbs of Cincinnati, under the auspices of the Cincinnati Zoological Society, who have already over $100,000 to devote to the improvement of the grounds, erection of buildings, etc.

The Central New York Journal of Medicine and Surgery is the name of a new periodical to be published in Syracuse by Dr. E. B. Stevens, who for several years was editor of the Cincinnati *Lancet and Observer*. The first number is to appear on the first of July.

Missouri.—The next session of the State Medical Association convenes in St. Louis, in April, 1876.

M. Adrien Delahaye, a well-known French publisher of medical works, is dead.

Dr. Rozier Coze, late Professor in the Faculty of Medicine of Strasburg, died recently at the age of eighty years, at Oberbruck, in Alsace.

M. Pasteur being unable to continue in the performance of his professional duties, retires upon an annuity of $1,160, and a pension, voted him by the French National Assembly, of $2,325.

Small-pox in French Hospitals.—For years past small-pox has been treated in the general wards of the Parisian hospitals, but of late the disease has been making such inroads in the French capital, that efforts are being made by the physicians to secure separate wards for the treatment of variolous patients.

The Monastery of Altenberg have advertised for a resident physician, who is to receive, besides his board and lodgings, a salary of about $100 per annum. For this munificent salary he is not only to give his professional services to the sick in the monastery, but will be expected to take charge of the hair and beards of the holy brethren.

Weekly Bulletin of the Meetings of Medical Societies.

Monday, June 14.—Obstetrical Sect. of the Academy of Medicine; N. Y. Soc. of Neurology and Electrology; Pathological Soc. of Brooklyn.

Tuesday, June 15.—N. Y. Obstetrical Soc.; N. Y. Dermatological Soc.; Medical Society of the County of Kings; Newark Medical Assoc.

Wednesday, June 16.—North-Western Med. and Surg. Soc.

Thursday, June 17.—N. Y. Academy of Medicine; Medical Assoc'n Eastern Dist. of Brooklyn.

Friday, June 18.—Medical Library and Journal Ass'n.; R. S. Guernsey, Esq., of the N. Y. Bar, "The Penal Law relating to Suicide in Ancient and Modern Times."

Original Communications.

SOME REMARKS ON SCARLET FEVER.

By EZRA M. HUNT, M.D.,

METUCHEN, N. J.

However desirable it may be for each of us to be equal to a great operation, it is far more desirable to be equal to the more frequent duties of every-day professional life. There are diseases that the average practitioner must very frequently meet, and upon which nearly all, save specialists, are to illustrate and enforce their skill. We reluct from saying anything about scarlet fever, because so much has so ably been said, because we have no new theory to offer, and because we are conscious of the diversity of opinion which obtains among our best practitioners as to its cause, phases, and treatment. But to record what we know, or think we know, is the clinical way to get at individual experience, and thus to make medical comparisons which are not odious. So we may get wrong views rubbed out of us, or mutually help to rub them out of each other. This is my only excuse for desiring to make a few observations as to some typical cases of the disease, and then to use them as a text for some reflections as to its cause, conduct, and treatment.

Dec. 22, 1874, I was called to see H. L., a girl of 14 years, of florid complexion, robust form, and full health, who had never had any serious sickness. I found her with excessive temperature, rapid pulse, and seeming quite sick. As diphtheria and various forms of throat disease were prevalent, I examined the throat, of which she complained slightly. I found it a little reddened, but with no swelling or sign of deposit. I prescribed chlorate of potassium and ipecacuanha, with a mild cathartic. The next morning there was but little change of symptoms, except that the general expression was that of a person about to have some severe development of disease.

The pulse was quick and wiry, and there was a pallor and slight blueness of lip, denotive of bad circulation. There was headache, but no delirium or stupor; no cough, and no sign of local complication. Catamenia had been suppressed. I said to the friends that I had apprehensions of a malignant type of fever. As I was very unwell, Dr. W. saw her in the evening, and came to my house. Our views of treatment coincided, but we were not able to complete diagnosis. Quinine had been ordered in the morning, and she was sustained by food. It was agreed that she should have stimulants during the night, and the Doctor remained with her. About midnight the prostration became more decided, and the circulation seemed greatly enfeebled. Stimulants were freely used, but she rapidly sank, and died about 7 A.M. We could only say that she had died of a very low grade of fever, or from the shock of some intense morbific paralyzer. Our village had been for a year or more unusually exempt from scarlet fever, and there had not been, so far as I know, a case within three miles. The day after this lady was taken sick, her brother was detained from his business in New York by a cold and dryness of throat, so that he kept his bed for the day. He went the next day to the city, but was walking about home the rest of the week, having loss of strength and appetite. He had no eruption, and no sign whatever of scarlet fever.

A little sister of 12, in full health, was invited to stay a few days at another house with a friend. Six days after her sister's attack she came to be seriously sick, under the care of Dr. Norton. In 36 hours I was summoned in consultation, as a rash had appeared. Her disease was manifestly scarlet fever. Here again there was high temperature (103°), and excessive fever, but no emesis, and very little sore throat. I saw the case but twice, and, although it was severe, no untoward symptoms presented themselves. After ten days I heard of her as making a good recovery. On the twenty-first day after her attack I was shown a specimen of the urine, largely laden with albumen, and at once expressed my anxiety, although no alarming symptoms had made their appearance. The next night I was sent for in consultation, and found the patient in laboring respiration and profuse perspiration, with nervous engorgement, and such pleuritic effusion and lung complication as betokened impending dissolution. She died the second day after.

A sister of Dr. N., at whose house the brother and other members of the family had been, was taken sick.

I also saw her when the eruption appeared. She was very sick for four or five days, with pulse at 120 to 130, and temperature ranging from 102° to 106°.

The fever was kept down with cold sponging, and ipecac and chloras potassium given at first, and afterwards chloras potassium and tincture muriatis ferri. The throat was inflamed. But little swelling of glands and no exudation occurred. Care was taken to keep the throat clear of mucus, to gargle frequently with cold water, and a slight enbrocation was used externally. She made a slow but satisfactory recovery.

When the second daughter of the former family was taken so severely ill away from home, her eldest sister, who had cared for the one who had died first, was much with her. Five days after, she was taken seriously ill at her home, where the first one had died.

With a pulse of 130, and a temperature of 106°, and the history of the other cases, the coming evil could be easily predicated. Yet there was no stomach disturbance, no redness of the tongue, and very slight soreness of throat.

I at once directed frequent sponging with cold water, and the use of drinks as refrigerants, besides giving a mild cathartic, a little chloride of potassium, and tincture muriatis ferri, endeavoring to regulate all surroundings as to air, temperature, etc. We had considered the hygienic condition of the house unsatisfactory before. At my request Drs. Norton and Baldwin were sent for in consultation. We had no proof from the case itself which would specifically identify it as scarlet fever, save perhaps the excessive temperature. No signs of eruption appeared until the fifth day, and then after most thorough and continuous sponging. It was then only scarlatina variegata, the eruption appearing over the chest, and a redness streaking out a little on the limbs. It varied much in distinctness, and would alternately appear and disappear. The temperature was taken twice per day, and varied from 102° to 104°. Pulse was 130 to 140, and lacked tone. Great reliance was placed upon frequent sponging; and because of the manifest debility, wine-whey was used as a drink. Twelve grains of quinine in three-grain doses was administered daily. Sheets and bed-clothing were changed, and aired with what appeared as "fussiness." The room itself was carefully cared for. We regretted that we were not able to change surroundings by removal from room to room. The throat became much sorer than in any of the other cases, with slight swelling of the gland on one side. One tonsil was in part covered with a diphtheritic patch, which was promptly touched with solution of nitras argenti. For one week there was very little change as to pulse, temperature, or general symptoms, but after this there was gradual improvement up to the twenty-first day, when albumen appeared in the urine, and swelling of the face occurred. Microscopical examination also revealed casts in the urine. Milk had been used pretty freely before, but now eggs were added. Pulvis purgans was given each day, sufficient to cause one or two watery evacuations. The skin was moistened by means of a vapor-bath, very hot bricks saturated with vinegar and water being first used, and afterwards a steaming apparatus. There was slight swelling of the feet, but no anasarca, and after two weeks the puffiness about the face had subsided. At this writing albumen has nearly passed away, and the patient is promising a good recovery.

In the meantime the brother before referred to, who had been confined to his bed one day and continued weak, was found to have very decided albuminuria. Between two and three weeks after his sick day, Dr. Flint had prescribed for him, and regarded his case as an acute one, probably dependent upon the scarlet fever poison. There is, however, some question whether his case is not to be regarded as chronic nephritis of a little earlier inception.

There were two other boys in the house who, at first, were unavoidably exposed, but did not contract the disease. There have been, so far as I know, but twelve additional cases of the disease in the village since those here mentioned, three being in one family, in which one died of convulsion before eruption, and three in another, in which one also died. The other cases were mild in their course. In all save one there had been known contact of persons in the families, but not of all those attacked.

During a practice of twenty years I have seen an ordinary amount of scarlet fever, and in these epidemics it has exhibited some malignancy. Its severity has been localized in families, so that it has not become very generally prevalent. In one case a family of five children died within one week. None of these had an eruption, save the last which I saw in consultation, in articulo mortis. None others in that sparse neighborhood died of it. A young lady, who aided in nursing these, had it quite severely, but with no alarming symptoms.

The first thing for a doctor to do when called to a case of scarlet fever is to recognize that he has in hand a case of poisoning. All poisoning requires wide-awake diligence, and prompt resort to prompt measures. It is not a matter of perfunctory direction. The peril is so impending that outside the sphere of antidotes there is a therapeutics of toxicology. The doctor must at a grasp take in the whole situation, as would a general amid a raid, and see himself that things are done. This is easy for a surgeon, for he is an operator, and the operation seems like an achievement; but the hygienic, counteracting preliminary work about a still disease is as utterly devoid of éclat as is confluent small-pox. It is constantly shown how severity of outbreak is mitigated by previous preparation and improved surroundings. We ought to learn very much as to all these zymotic diseases from what occurred when inoculation was not in vogue. How dreadful was the small-pox then as a scourge. Yet how wondrously was it shorn of terror just by proper methods of preparation. It is the record of what prophylaxis can do for disease, and ought to instruct us much as zymotic diseases multiply upon us. So also should the history of cholera, of which the medical officer of the Privy Council of England says: It has "the faculty of infecting districts, in a manner detrimental to life, only when the atmosphere is fraught with certain products susceptible, under its influence, of undergoing poisonous transformations. Through the unpolluted atmosphere of cleanly districts it migrates without a blow; that which it can kindle into poison is not there."

I know of no disease in which, in the start, diligence is of more importance than in scarlet fever. The vomiting, or the system depressed below the point of emesis; the intense heat, beyond that of any other disease in its inception; the wiry pulse, and the general malaise, show that some vicious and tissue-consuming force has found its way into the system, which hastens to disorganize vital fluids, and which strikes at the centre of life. It is one of those diseases which, of itself curable, is dangerous by reason of the incurable damage it has wrought. It is much easier to deal with such a disease as a cause, and as such abate it, than it is to medicate its effects. It is one thing to meet a disease and contend with it, and another to doctor the damages it has made. For instance, the poison may make rapid rise in temperature and intensely involve the capillary system, and yet by prompt measures be restrained; but if defibrinization has to a great degree taken place, and the mucous membrane has become "infiltrated with fibrous exudation," we have new factors to deal with. The fact that we may not remedy such a state does not militate against the fact that we may arrest the disease, so as not to have to deal with its irremediable disintegrations. The bodies of those who die have "blood poor in fibrine, thin and dark." It seems as if a poison had been infused in the blood which has the effect to separate fibrine as it may be done after bleeding, and so disorganize the blood as that it ceases to be a vital fluid.

In the start we have plainly to do with a toxic element, and must treat it accordingly. We must do with it as with all poisons for which we have no chemical antidotes. The chief danger is the amount, and we must make it harmless by dilution. We are to be ever so busy, not ten days after, but in the early hours in which the poison begins to proclaim its presence—1st, to *keep diluting;* 2d, to *prevent the administration* of more; and 3d, to *provide the most natural and rapid facilities for its elimination.* Thus it is to treat the disease, instead of waiting to treat its advanced destructions. Cases become critical, just as in poisoning, from the quantity more than the quality of the poison. The chemists define *quantivalence* to be "the observed power, force, or value for work of an atom," and it is this aggregated and manifested power of disease atoms which must be reduced to the minimum. *Air and water* are the great diluters, and must be looked after as important reliances in reducing the concentration.

If we always had our way we would not allow a patient much sick with the disease to be kept in the same room more than a day at a time. The bed-clothing as well as the body clothing must be frequently changed, and air freely admitted, and water used as we shall specify further on. In connection with this it is well to avail ourselves of the best of the class of disinfectants, although we are to remember, as Harris recently remarks, "that much that passes for disinfection and sanitary cleansing are such only in name." The vapor of tar or vinegar is generally not unpleasant to the patient, and can easily be secured from a stove or cooking lamp by heating a little of either in a tin basin. This must not serve us in the place of chlorinated lime or Labarraque's solution, either of which we are in these cases slow to supersede by any of the phenyl preparations. But after all, air and water help most in preventing the reinhaling of morbid product. In common with Watson and others, we believe the aggregate mucous follicles of the mouth and the throat, and especially the tonsils, become *sources of poison*, which is received into the lymphatic system, or even more directly into the circulation, and so aid bad air in its readministration. We therefore like that the throat be frequently cleansed without being strained, and that little or no saliva be swallowed. Cold water at first answers better than medicated gargles, and astringents should not be too early used. It is very important to keep the mouth in order, for glandular complication is always troublesome. Much of this in its inception may be due to local absorption or to the mechanical obstruction by which the ducts of the various glands and follicles about the mouth are occluded and the ear seriously affected by the closure of the Eustachian tubes. The iodine liniment is good for the enlarged gland, and an oil-silk covering. We are to accomplish the third point, or to afford natural and rapid facilities for the elimination of the poison, chiefly through the medium of the skin and kidneys. But it happens that these are the very parts primarily attacked in scarlet fever. Hence we need the most astute diligence in restoring or preserving these functions. Our chief deliverance must accrue through these emunctories. A *right temperature* and *moisture of skin* are the chief methods of dealing with it, and the free use of fluid the chief method of action on the kidneys. The remedy in the inception of scarlet fever, *therefore, is cold water within and without*, and the *thermometer is the most valuable indicator for treatment.* Heat, internal and external, is the most prevalent symptom, and must be combated not only in itself, but because of its disorganizing effects. There is paralysis of the functions of vital organs similar to that of coup-de-soleil, although more marked on the heart than on the brain. The intense heat suspends moisture and radiation. So there is suspension of insensible perspiration and "a height of temperature inconsistent with life." Parkes says the temperature of the body is, 1st, the result of chemical changes of the food and the conversion of mechanical force into heat and direct absorption without. Here it is also a result of a toxic agent introduced from without. Opposed to the natural heat we have a wonderful balance and stability of animal temperature preserved in all climates by evaporation from the surface of the body. In scarlet fever the fearful factor is that internal heat production is augmented, and evaporation from the surface and from the lungs is much suspended. It would be instructive, did space permit, to take such authorities as Parkes, Weymyer, H. C. Wood, on "Thermic Fever," etc., and follow out the parallel and show how also the heart and nerves are paralyzed, and nervous tissue altered by the heat instead of by the poison. So soon as the heat is 100° F. we should see an indication for cool sponging and refrigerant drink in some form. The thermometer should be the pathognomonic symptom. This method should be followed up sufficiently often to limit the temperature.

How this shall be done physicians may differ, and upon it have fine opportunity for close observation. One, like Vogel, recommends inunction, because oil regulates temperature. It is also to be noticed that in this treatment both he and Schneeman keep the temperature of the room at 60° and really use the oil to prevent sudden capillary changes. The latter even advises a lower temperature and oft-repeated ventilations, and that the windows in his cold climate be kept open three hours per day. Thus the lungs have extra chance in their work of evaporation as well as the skin. It is a cold-air bath instead of a sponge-and-water bath. Others rely much on refrigerant drinks, and add cooling medicines as aiding the effect of liquids. Some are content with simple cold water if there be no other way to encourage the use of liquids: while others prefer liquids slightly warmed when they can be made sufficiently palatable to be taken in large quantities. These means may aid in reducing temperature, which is generally equivalent to saying *and in eliminating the poison.*

The sponging is not to be routine sponging, but such as is followed up under thermometric guide, and continued, if thus indicated, long after the eruption. The highest triumph of the medical thermometer will yet be in measuring zymotic diseases. Our great trouble in the use of cold water externally is to find a nurse who has both judgment and industry enough to do duty at each oft-recurring crisis of rise of temperature. The doctor needs to be on the alert. In this as in all poisoning cases time is a controlling factor, and delays are fatal.

Changes take place which were preventable, but having once occurred are irremediable. Vigilance in scarlet fever must be largely prophylactic, or rather "phylactic," all the way through. The use of the water must be by sponging a part and then drying it without rubbing and without undue exposure of the whole body. As to cooling internally and seeking relief through the kidneys, which at the start have less interruption of function than the skin, cold water is the chief reliance. We have never forgotten the remark of Dr. Beck, that the best and chief diuretic is water, and so it is the chief refrigerant. The stomach is sometimes disordered by acid drinks or by making the water too much the vehicle of other things, yet it is often necessary, in order to secure quantity and suit the stomach, to use unstimulating teas or drinks, such as lemonade or tamarind water, although we confess to prejudice against much drink-medication at this stage. Starting, then, with the fundamental idea that we are to regulate the temperature by water within or without as the thermometer may indicate, we must then seek to know how far medicines are to avail. Ipecacuanha, in the earliest stage, combined with chloras potassium, acts not as a nauseant and depressant, but as a febrifuge and a soother of mucous membrane. Dover's powder is seldom indicated unless to avoid a second night of great restlessness which sponging fails to relieve. The use of quinine would seem proper as an anti-pyretic, but in fevers having no periodicity, we have seldom found it available at the start; after the first few days, when the fever has commenced to decline, we have found it more valuable as a daily tonic. Here at first the fire is so fervid and special (Promethean) that, as in yellow fever, quinine has no specific action.

We are chiefly to rely upon that class of remedies which is *unfavorable to fermentive or destructive processes*, for there is in this disease a depravation of the blood by which its vitalizing agency is retarded. The question (hypothetical) occurs whether sulphite of soda or other neutral salts, or aromatic spirits of ammonia, may not act by delaying blood changes; just as after bleeding, by adding to the blood a solution of neutral salts, you may retard when you do not prevent coagulation. But the chief remedies on which we are to rely are those like chlorate of potassium, which has practically shown itself to be arrestive of adynamic or morbid decompositions, or such as tinc. muriatis ferri and the mineral acids, which arrest fermentive processes. To these add, when needed, such articles as vinegar and alcohol, which, as having undergone fermentation, are to a great degree incapable of change, and arrest it where occurring. Although we know not the mode, yet the fact from practice is growing more and more into admission, that there is a class of remedies which, taken into the system, do tend to arrest abnormal disintegrations. In some cases they do so by combinations. In others it may be by mere presence (catalytic), just as in chemistry starch changes into sugar in presence of sulphuric acid. We are not sure but that the chief value of alcohol will hereafter be shown to be that in itself, and as in part changed into acetic acid in the stomach, it will not undergo but will retard fermentative and putrefactive changes, as with facile quick step it reaches to blood and tissues. The same is true of acetic fermentation. We like in all zymotic disease those remedies which in part reappear unchanged in the excretions, or those which change to neutralize morbid conditions, and generally in so doing impart acidity to the urine. Of such we believe chlorate of potassium and tinc. muriatis ferri among the chief. These seem to us to act better together than either alone, the best chloras potassium being used in about three or five grain doses, with from five to ten drops of the tincture. The action of the potassium in stomatitis, and of the iron in erysipelas, is so marked that it seems to us they have an arrestive effect in such like morbid decompositions. We believe it quite important to have the tincture muriatis ferri in its purest form, in which, and in which only, it contains the "sesquichloride of iron, muriatic acid, and alcohol, and from the reaction of the last two ingredients, muriatic ether." "It is," says Wood, "possessed of peculiar properties, probably in some measure due to the ether which it contains. It increases the daily urinary secretion. We believe it of service in prospect of the kidney desquamation, which is to be regarded as a part rather than a complication of scarlet fever." Even during the eruption "the urine contains quantities of detached epithelium, and often traces of albumen," from the local hyperaemia, without croupous inflammation. We are learning to pay more attention to the kidney, because very early it is thus called upon to do work in the line of getting rid of abnormal product. Next to the skin it is here the chief emunctory, and just because it is so apt to be locally or functionally affected, must have attention, and because of the extra demand, the irritation of function and the tubal nephritis which often occur therefrom.

The intense general depression which we often have at the start is owing to the toxic effect upon the blood and nervous system, and relief is mostly to be sought by the most vigorous reduction of heat, according to thermometric indications, and the diligent use of the remedies spoken of. Alcohol may also be used in some cases for its anti-fermentive and sustaining effect. Both it and ammonia serve in cases of exceptional severity as stimulants, which aid to keep the heart in action and prevent blood-change, death often occurring from paralysis of the heart or from a change in the life-cohesion of the blood itself. Further than thus far named, we think medication has not very much to do in scarlet fever. We see cases where water alone does not seem to suffice as the cooling and diuretic drink; but some refrigerant needs to be added, or, as noted before, some change in form of a cool tea, which will be more relished. Common tea or sage tea sometimes appear of value by the action upon the kidney of the tannin they contain. We even hesitate to name diuretics, etc., lest this should bring physic into prominence. Like Sir Philip Sidney with his Arcadia, we have a model of how successfully to meet severe cases of scarlatina, if at all seen in time, or with chance for any treatment. The line of direction of treatment is plain, and the indications for the variations required not obscure. It is unsafe to present an unvarying programme, for no disease is made for a Procrustean bed. Yet there are few diseases in which the treatment is so uniform, and, if followed out in time, we believe we may say so successful. The heat-regulating treatment, and the attempt to preserve the great emunctories intact, and to prevent reinhalation or repoisoning in any form, is the primal idea. Next to it are the remedies already indicated, and that care of surroundings and attention to littles which no formula of treatment can describe.

During the high temperature of the disease, all foods given should be in liquid form. Generally in the earlier stage nutrients do not need to be pressed, as the depression is not dependent upon the failure of food or of the tissues to ferment it, but to toxic influence. Milk is more frequently indicated than any other food, and eggs when anything more solid comes to be allowed. As the mucous membrane of the stomach and the alimentary canal are not in a state for free secretions of digestive fluid, we need the blandest food, and breadstuffs are often used too early. Broths, gelatine, and a little stewed fruit (not canned), and fresh soda-cracker are among the aliments proper.

As to the etiology of scarlet fever, we have but little to say, except as starting thought and study. It is good to have well-defined hypotheses, and then theory, that we may sift facts and know whether they mean or justify a settled medical belief.

That the disease is a distinct entity, and is infectious, the following case indicates: I had attended a severe case of scarlet fever in the only child of a family residing near the Raritan River. The grandmother, some six weeks after, went on a visit to a neighborhood four miles distant, where there had been no cases of scarlet fever for a year. She took with her an old box which had in it a silk dress, and which had been under the bed of the sick child. For two weeks after her arrival no case of scarlet fever appeared among the children of the family where she was. But one Sunday she opened the box which had in it her dress, and put it on, and the next Sunday scarlet fever appeared in that family. Before I was called to see these cases I was in attendance upon one of the children of the next neighbor, some 200 yards distant, who had just broken out with measles, contracted, as was afterwards found, by sleeping with a cousin in Plainfield two weeks before. The measle eruption was as characteristic and unmistakable as I have ever seen. Soon after it appeared another eruption appeared, mostly on the part least broken out with measles, and this was as distinctly scarlet fever. The one was much the most distinct on the one side, and the other on the other side. On the two arms especially the contrast was marked. I then found that the child had been, the Sunday one week before, at the house of this neighbor where the children had just commenced complaining. The case was a severe one, the scarlet fever being associated with suppuration of the parotid gland. The child recovered. In one week the second child was taken with scarlet fever, which ran its course not severely, and a week after broke out with measles, the scarlet eruption having subsided. I had thus additional proof of infection, and of the possibility of the two diseases existing at the same time. While infection is the chief source of these zymotic diseases, we do not believe it necessary to assume either that it or contagion are the only sources. They have their laws of origin and propagation, and spread mostly by infection; yet the same conditions which finally occurred and produced cholera in India, might occur and produce it elsewhere. Given the same combination of conditions at New Orleans, and it might originate there. Whether, as a matter of fact, it does, is a question to be settled only by aggregation of facts and difficult exclusion of all outside possibilities. The spontaneous generation of any given disease, or of any new disease, is quite a different question from the spontaneous generation of animal life. I know not why the combination called gunpowder did not get together long before, why lucifer matches waited for the present century, or why nitro-glycerine so long waited its union. Filth has its laws as well as other chemistries. It is quite possible that while the zymotic diseases spread by infection mostly, that once in a thousand times just that correlation of degenerations may occur, of which the result is this or that disease. A manufactory for making nitro-glycerine and giant-powder in this State had to import from Germany an infusorial earth needed. Some of the giant powder contains 25 per cent. of it. In a swale or depression covered by a swamp of low bushes near the factory, some one found a whitish earth. Examination shows it to be the very article they were importing, entirely made up of the silicious skeletons of diatoms. I know as little how they got there as I know why some diseases which we get from abroad or from infection are found on the spot. We know no reason why the chemistry of decay and its combinations should not have as many originalities as the chemistry of life. Some day we will know more on these points, as we are getting hold of some great outlying and underlying truths. It is worth while to voyage about a little, as did Columbus, and to collect drift-wood, only we must not cry land too early. But we feel sure of some things about these zymotic diseases, and that some of the indications are plain. We want that each and all of us shall watch closely, and see how far, in addition to the principles of treatment set forth, we may get aid from proper surroundings. Bad sewage and sinks do not all the foul work. Bad kitchens, close basements full of the fungus of dampness, uncleansed corners up-stairs, dirty drawers and closets never scrubbed or aired, furniture never washed, soiled carpets used more than that of parlor, but not shaken as often, soiled beds and manifold neglects of good old-fashioned house-cleaning, now and then let a disease out of the pandora-box, or make it rampant when it comes along. Doctors often fail, not because of a weak science or art, but because conditions of failure are all about them. There is much twaddle about the uncertainty of medicine, and the failure to find out remedies. There are scores of physicians in New York City so skilled in this and some other diseases, that it would be no vain boast to claim they could stamp out the disease as Hamilton did cholera on Blackwell's Island, if only they can command and execute. Indeed, we believe that much can be done in each family to mitigate the severity of the disease in those attacked after the first one, if the physician will see to it that there is special ablution, extra care as to sleeping apartments and food. It is hard to get credit from anybody for preventive treatment, but much is to be done for the family in which such a disease commences, and the doctor should regard each child then as under his charge. We often have to blame ourselves that we do not look more carefully after the personal hygiene of each member in such cases. It is more specific than belladonna. The patient sick, too, needs a skilled and *obedient* nurse, and these are difficult traits to combine in one person. The appliances to be used seem to us not doubtful, but are so relative to change of temperature and to phases of the disease that we know of none of the zymotic group in which there is so often modification as to the degree, and yet uniformity as to the remedies. Much depends upon whether the force of attack is upon throat, skin, or kidneys, and whether we are on the alert to prevent undue hyperæmia in either. With the case before us, and diligent work at it and around it, and a good nurse, we believe that such indications of treatment as we have noted may be carried out with far more success in result than the average now attained. We urge the profession to a closer testing of these views. If correct they mark out for us with some definiteness the line of treatment and the leading indications.

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CHRONIC ENLARGEMENT OF THE TONSILS IN THEIR RELATIONS WITH CERTAIN SPASMODIC PHENOMENA.

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The authors who recount to us the features of tonsillar hypertrophy do not mention any influence of a spasmodic nature which these masses exercise by their close proximity with nerve-trunks. That such a condition, however, is able to occasion, at times, these effects appears to us highly probable, if we duly consider some histories recently registered in our contemporary medical periodicals. To illustrate and prove this statement we beg leave to cite the following cases:

In the *Philadelphia Medical Times* of February 7th, of the present year, Professor Elsberg relates "a curious instance of peculiar expiratory wheezing, occurring in paroxysms, irregularly, but often every few minutes."

He says that, upon examination, "he found the sides of the pharynx swollen, spongy, and flabby, the tonsils and infra-tonsillar glands enlarged and nodulated, the mucous membrane of these glands infiltrated and degenerated. . . . . On removing portions of the tonsils, and of this tumefied mucous membrane, these peculiar paroxysms, that had resisted all internal treatment, *ceased*."

Now, "to wheeze," according to Dunglison, "is to breathe with difficulty and noise, as in asthma." In other words, it is that sort of breathing which is characteristic of, and most probably accounted for by, spasm of the muscular fibres which surround the multiple divisions of the air-tubes. The assignable cause of its production in the case just quoted is evidently the compression caused by the swollen condition of the sides of the pharynx and the enlarged tonsils and infra-tonsillar glands.

Again in the *British Medical Journal*, June 7th, 1873, Dr. J. M. Haward relates the case of a girl, 13 years of age, in whom attacks of nightmare, occurring generally about an hour after going to bed, appeared caused by, and certainly were cured by the removal of, enlarged tonsils. What is nightmare? Is it not a state of passing malaise taking place during sleep, and characterized by a painful sensation vaguely perceived in some region of the body? To this latter feeling is superadded a condition of oppression and painful anxiety. The sufferer, if an adult, is unable to cry out or to move, and yet is tormented by a terrible dream, in which frightful images and ideas are conjured up in rapid succession. With children there is more agitation, and there are frequent cries during the period of attack.

In the definition given above we find both a sensory and a psychic element. With respect to the trouble of the brain—or the one to which is attributable the transformation of a painful sensation into shapes and forms which leads one's mind to that inco-ordinative frame which has been justly termed "brain delirium"—we do not intend to present any considerations. The *cause*, or rather the *point of origin*, of nightmare is what now interests us most to consider—*not* the *false interpretation* of the painful sensation, whatever it may be. It is this sensation—the result of derangement of certain function or functions—which reverberates towards the brain, and excites the apparition of appalling images. Generally speaking, the object to which the impression is affixed is some heavy body, whose weight is exerted in the epigastric region. This body takes all sorts of appearances, but the idea of weight seems to belong to affections of the organs of digestion, or those of the respiratory tract.

So the conception of contest or combat is annexed to troubles of the apparatus of circulation. In morbid conditions of the heart, lungs, or stomach, an unaccustomed position in sleep, or one by which the circulation in any one of these organs is retarded or interfered with, is quite sufficient to produce an attack of nightmare. If due reflection be given to these facts, we believe it will be admitted as highly probable that morbid changes in the structure of the vagi are often the proximate cause of the spasmodic effects in the lungs, which is made manifest rapidly by symptoms of oppression and anxiety.

Nightmare is then *not* a mere effect of the imagination; there is also a material cause to which it owes its production. This may be, we are aware, a morbid condition of almost any kind, and it may exist in a remote organ which is not in contiguous relations with either the trunk or branches of the pneumogastric nerves. Such fact, however, is not usually true, and in tonsillar enlargement we have, owing to the anatomical position of the tonsils, an immediate, direct, efficient cause of trouble of the sort. We are of the opinion, therefore, that by the compression which originates in an hypertrophied condition of the tonsils or lateral walls of the pharynx, we may have that perversion of nerve-force in, or that changed condition of circulation about, the pneumogastric nerves which shall produce as a result anxiety and difficulty of breathing, through their morbid and excessive influence upon the muscular layer of the bronchial tubes.

Is the influence confined to this portion of the air-passages? May not a spasm produced after this manner also affect the larynx?

Numerous are the shades of belief which exist as to the pathological nature of spasmus glottidis, or laryngismus stridulus, which are but names for a spasmodic action of the adductor muscles of the larynx, which gives rise to paroxysms of intense dyspnœa. In children, according to some eminent authorities, there is frequently an altered condition of the nerve-centres, whilst in these same cases other physicians will invariably recognize an excessive susceptibility on the part of the glottic nerves to receive reflex impressions. To us laryngismus stridulus appears to be a spasmodic affection of the purest type, which in severe cases manifests itself at the same time in many different organs of the body. In these latter instances, where there are many concomitant phenomena of the same order, there can be little doubt that the affection points to a central origin. The brain irritation which then exists to a greater or less degree has been brought on by proximate or remote trouble, and this derangement of a functional or mechanical nature may be of very varied description. In children, teething, indigestion, the pricking of a pin or needle, intestinal worms, etc., may be the cause of brain irritation, and hence of spasm of the glottis. Under like circumstances, the mucous lining of the air-passages, including that of the larynx, is, as a rule, tolerably healthy. Where an adult is affected, there is frequently some catarrhal, or inflammatory condition of the mucous membrane of the larynx which acts as an efficient cause of the spasm. So say Meigs and Pepper in their admirable treatise on Diseases of Children. Now, to this we would append the facts which we ourselves have observed, as Resident Medical Officer in the Hospital St. Eugenie of Paris, viz., that in more than one undoubted instance where we have had occasion to care for children laboring under laryngismus stridulus, or its immediate effects, there was great hypertrophy of the tonsils and a diseased condition of the adjacent mucous membrane. Accompanying this condition, there was cervical and sub-maxillary glandular induration and enlargement, no doubt sufficiently accounted for by the morbid state existing in the fauces. According to Herard, who has made careful researches in regard to the changes of the central nervous system amongst children who have died of this disease, "the tissues of the brain and spinal marrow retained their ordinary consistence, and presented neither redness nor softening." If we examine the reported cases, especially with respect to the aspect, as seen at the necropsy, presented by the pneumogastric nerves, the statements are different. In some there was no manifest lesion of these *nerve-trunks*, or even of their *peripheral* fibres. In others the vagi were softened; some authors have found them indurated. These lesions are those which may readily follow as the result of immediate compression by a neoplasm of chronic growth, or by some adjacent organ which has increased to abnormal dimensions. We are aware that the pneumogastric nerves have been found almost completely flattened by compression due to tubercles, or indurated and enlarged cervical glands. And yet amongst these cases there are, curiously enough, examples where such compression has occasioned no visible disturbance of the function of respiration.

That like cases do occur is perfectly well authenticated. What then is the proper explanation of the examples of spasm to which we have referred in our preceding citations? To produce temporary spasm, a rapidly changed condition of local circulation is frequently essential.

Whenever a morbid mass of any kind is present in some particular organ of the body, this might be easily affected by sudden compression of nerve structure, and the probability of this symptom becoming manifest would be increased, if the nerves were in an irritable or diseased state. Instances of this description we are all of us more or less familiar with in other regions of the economy.

Why, then, may we not infer that analogous or like causes shall produce somewhat similar consequences in the lungs or larynx.

In conclusion, we offer the following as a rule of practice, viz.: *whenever chronic tonsillar enlargement is accompanied with spasmodic phenomena, having their anatomical seat either in the lungs or vocal organ, excision of tonsils* (unless there be some formal contra-indication) *may be performed with much resulting advantage, for by this operation we shall probably rid our patient of painful and recurring attacks of dyspnœa or oppression.*

37 West 35th St., *May*, 1875.

Progress of Medical Science.

THYMOL AN ANTISEPTIC AND ANTIFERMENTATIVE SUBSTANCE.—At the suggestion of Prof. Liebreich, Lewin has investigated the properties of thymol, and has published a part of the results at which he arrived. He states that this substance, the formula of which is $C_{10}H_{14}C_2$, is a benzol obtained by distillation from the oil of thyme, and consists of highly aromatic white crystals soluble in 1000 parts of hot water. A solution even as weak as this exhibits all its peculiar properties. He found that saccharine fermentation was wholly prevented by a $\frac{1}{10}$ per cent. solution of thymol, while solutions of carbolic and salicylic acid four times as strong were not nearly so efficacious. The thymol solution also at once arrested a fermentation which had already begun. The quantitative determination of the loss of weight by the process of fermentation gave even more striking results. He found that milk treated with the thymol solution did not coagulate till twenty days later than when mixed with the same quantity of simple water, while it remains perfectly sweet and free from mould at the end of five weeks. The same was the case with white of egg after eleven weeks. Putrid pus, when mixed with the thymol solution, lost its fetid smell, and remained in this condition until it dried up. Urine similarly treated did not on an average show signs of decomposition till the end of five weeks. He declares, moreover, that thymol is capable of arresting or preventing the action of putrid pus upon the animal system, and is decidedly deodorizing. The high price of the article he regards as of minor importance, because it may be used in such dilute solutions. When taken into the mouth a $\frac{1}{10}$ per cent. solution caused a slightly burning and astringent sensation. When taken into the stomach it appeared to prevent fermentative changes, but not to interfere with digestion.—*Centralblatt f. d. med. Wissensch.*, May 1, 1875.

CROTON CHLORAL HYDRATE AND ITS MODE OF ADMINISTRATION.—Dr. J. C. Ogilvie Will quotes the minutes of various cases of neuralgic affections, one of the passage of a renal calculus, two of whooping-cough, one of cough following pleurisy, and two of cough in phthisis, in which the croton chloral was administered in small doses, and with the happiest results. He employs a syrup containing two grains of croton choral to a drachm of a mixture of glycerine and syrup of orange-flowers, colored by adding a very minute quantity of tincture of cochineal. In this mixture the taste of the chloral, he says, is entirely concealed, and the preparation, moreover, is permanent, which undoubtedly is of great advantage.

In adults suffering from neuralgia he uses two or three grains of the chloral at varying intervals, according to the severity of the pain, the largest quantity he has been obliged to use before relief was obtained, being fourteen grains in two hours.

In the case of whooping-cough which he reports, he used fifteen or twenty minim doses of the above mixture at bedtime, with good results, the fits of coughing becoming much less severe in character, though about the same in frequency. The ages of these patients were respectively four and five years. In the other cases, all adults, of cough in phthisis and after pleurisy, the doses varied from one to two drachms of the syrup, but were always followed by relief.

Dr. Will, judging from his own experience, endorses Liebreich's statement, "that croton chloral rapidly produces slumber similarly to ordinary chloral, but without its use being followed, as in the case of the latter, by lowering of the pulse and respiration."—*The Medical Press and Circular*, May 12th, 1875.

LEAD POISONING IN LEAD WORKERS.—Dr. Ramskill has given a *résumé* of sixty cases of poisoning among white-lead workers, who had been under treatment in the wards of the London Hospital, within the past two years. Of the sixty, thirty-three were males and twenty-seven females. Of the males, the majority were between twenty and thirty years of age, only seven being over forty. The fact that the largest number who were poisoned were under thirty years of age would seem to indicate, he thinks, that the men are unable to work for a long period without suffering. Of the twenty-seven females, three were under twenty, three over forty, and of the remainder, nine were between twenty and thirty, and eleven between thirty and forty. From this it would seem, at first sight, that the women were able to continue at the work longer than the men, but he found, on inquiry, that the latter commenced the work earlier in life, and therefore were younger when attacked.

The early or late appearance of poisoning varied with their special employments, the most injurious occupation seeming to be attending to the drying and carrying of the newly dried material to the work-house.

This newly dried white-lead is powdery and easily shaken about, and so may enter the system by the mouth, in respiration, or by becoming intimately mixed with the clothing and infecting the body through contact with the skin.

The treatment at first consisted of removal of the patient from the source of the disease, rest, and in some cases the administration of quinine and sulphuric acid; in others, sulphate of magnesia followed by iodide of potassium. Two of the sixty patients died, both being young women and sisters, and in each epileptiform convulsions were features of the case. In one, lead was found in the brain.—*British Medical Journal*, May 8, 1875.

EVIDENCES THAT PREGNANCY HAS TAKEN PLACE.—Dr. Wachs declares that the longer the time that has elapsed since the labor, the more difficult will it be to determine that it ever took place. Lax, hanging breasts may be due to various other causes, and are of no diagnostic value. Nor do prominence of the nipple and development of the areolar glands furnish positive evidence, as they may depend upon other pathological processes, especially in the uterus. Pigmentation of the areola never disappears completely after the first pregnancy, but if there have been pregnancies preceding the one suspected, it would not be possible to make sure of the degree of fading. A rose-red color of the nipple and areola argue against previous pregnancy. The presence of milk in the breast points to pregnancy, the absence of it does not disprove that condition. The traces of pregnancy on the skin of the abdomen may not be present if an early abortion has occurred, so that the integuments were never unduly distended, and on the other hand ascites, ovarian dropsy, or uterine fibroids may cause these striæ. After the distention of pregnancy the skin of the abdomen loses its elasticity, so that it may be taken up in folds; but if the puerperal woman keeps the horizontal position for the regular nine days, and avoids exertion, this elasticity is largely recovered. Such precautions are not likely to be observed when the fact of labor has to be concealed, and the skin remains lax, so that the hand can easily be pressed against the lumbar vertebræ, which the author regards as a very important indication. There has probably been pregnancy when there is a lacerated perineum or ruptured frenulum, though the latter may possibly remain intact in spite of labor. The presence of an intact hymen argues against a previous labor, and even an abortion could only have occurred in the very earliest months. A diminution and laxity of the folds of the vaginal wall point to pregnancy. Further decided indications are found in lacerations of the margin of the os uteri, a cylindrical portio-vaginalis and a gaping os, although the author declares that long-continued abstinence from sexual gratification may do away with these latter changes. He admits that there are many cases where it would be impossible to express a positive opinion.—*Viertljahrschr. f. gerichtl. Med.—Rundschau*, April 12, 1875.

Rest in Nervous Disease.—Under this heading, Dr. S. Weir Mitchell contributes an article that forms the fourth number of Dr. Seguin's Series of American Clinical Lectures. In order to get the full benefit of this particular treatment of the disease, it is often necessary to put the patient to bed, and prevent, as far as possible, all voluntary effort. The effect is much the same as when a fractured limb is placed in splints. The muscles become flabby, the vessels lose their tone; the skin suffers in its nutrition, the joints become stiff, and for a time the function of the part is lost until the effects of the rest are counteracted by stimulated activity. But when the whole body is permitted thus to remain inactive, the effects are more general and serious. The appetite is lessened, the digestion may suffer, the bowels become constipated, the circulation enfeebled. The temperature falls, and the pulse becomes "a third slower." Another consequence to which allusion is made as a serious consideration is that this inactivity at first enforced may, in the end, become a permanent condition. This is especially true of women, who are very apt to become bedridden under these circumstances.

The first class of cases mentioned, for which the treatment by mechanical rest is advised, consists of those in which pain is the most prominent symptom—the neuralgias. The fact is pointed out that when a nervous centre is in a morbidly irritable state, the impressions produced by normal functional activity become converted into sensations of pain.

The writer mentions a rare form of writer's cramp, which is attended with pain, and which may always be relieved by rest. Next, a variety of affections of the central nervous system is mentioned, in which this treatment is regarded as exceedingly important. A disorder peculiar to women is described, which is characterized by a condition of defective nutrition, in which a painful sense of fatigue is the most prominent symptom. Besides, the patient has a low temperature, the pulse is usually accelerated, more or less anæmia is present, with an increased proportion of white blood corpuscles. Every attempt at exertion, whether mental or physical, immediately occasions an extreme feeling of weariness, so that ultimately the power of exertion is almost entirely lost. The treatment consisted in keeping the patient in bed, and prohibition of the slightest exertion. At first the patient was not even allowed to turn herself in bed, and was fed chiefly by the rectum. To counteract the effect of the loss of normal muscular exercise upon the circulation, etc., recourse was had to massage and faradism of the muscles.

Allusion is also made to the use of rest in the early stages of spinal congestion, meningitis and chronic myelitis, but especially in locomotor ataxia. Mitchell was first led to adopt this treatment in the latter disease, in consequence of seeing several perfect recoveries in the painful stage of the affection, follow fracture of a limb, compelling the patient to a season of quiet in bed.

Epidemic Thoracic Catarrh.—This name Finsen has given to an epidemic thoracic affection peculiar to arctic regions, and especially Iceland. Of the 155 cases observed by him in the latter country, 72 were of the catarrhal form, 42 pneumonic, and 41 pleuritic. Two such epidemics were observed: the first lasting from the fall of 1859 to the end of 1860, spreading from the eastern portion of the northern district over the whole country, and terminating in the eastern district. The second, on the contrary, commenced in the eastern district, and spread in a westerly direction over the entire country, terminating in the winter of 1863. These epidemics were peculiar in a pathological regard, not only because of the marked contagious nature of the catarrh, but also because of the remarkable fact, that one and the same epidemic consisted of such varied forms of disease as catarrh, pneumonia, and pleurisy, and that the last two inflammatory diseases should be contagious. He thinks that there could be no suspicion of a mistake in the diagnosis, for similar epidemics also occur in Greenland.

The "snuffles" epidemic of Greenland also consists of catarrh, pneumonia, and pleurisy, but it occurs regularly every year at the same season, and spreads over the country with a strong developed contagiousness, passing from north to south, and later in the year with a retrograde movement, from south to north. It is of a more dangerous character, however, than the Iceland epidemic—a very considerable portion of the cases terminating fatally.

Epidemics of influenza are of more frequent occurrence, and from their wide extent play a more important rôle than in Europe. The author passed through three such, which did not present any peculiarity other than their great intensity. In one of them 2.37 per cent. of the population of his district perished. The greatest proportion of fatal cases occur in early childhood, before the fifth year, and are also frequent after the fiftieth; very few patients between five and thirty die of the disease. When the disease once commences it travels in every direction, without regard to wind or weather, with such rapidity as to spread through the whole island in less than two weeks. It lasts between six and eight weeks, and in this time has, with few exceptions, attacked the entire population.—*Hospitals-tidende*, Dec. 1874.

Charcot on the Relief of Hysterical Seizures by Compression of the Ovaries.—According to Charcot most hysterical seizures are preceded by an aura starting from one or both of the ovaries, and he finds that pressure on the organ indicated causes immediate arrest of the seizure. He illustrated this action upon a patient in the Salpetrière affected with hystero-epilepsy. The seizure recurred, however, the moment the pressure was taken off. In order to keep up the pressure for a longer time than would be possible with the unaided hands he recommends an apparatus like a tourniquet. The pressure is to be made in the situation and direction requisite in compressing the iliac artery, and, in fact, this vessel will be felt pulsating under the finger.—*Gaz. Méd. de Paris*, Nov. 5, 1875.

A New Method of Showing Waxy Changes in the Tissues.—At a recent meeting of the Société de Biologie in Paris, M. Cornil exhibited a number of preparations in which he demonstrated the presence of waxy degenerations by means of the *Violet de Paris*, or the violet of methylaniline. The affected elements assumed a bright red color, while the others were colored blue.—*Gaz. Hebdom.*, May 14, 1875.

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DIPHTHERIA IN NEW YORK.

Opinions have frequently been expressed in medical circles that the prevalence of diphtheria in this city has been a good deal overestimated by the public, and that the number of fatal cases for the past six or eight months has not been much larger than for similar periods of other years. This view, however, is not sustained by the mortality tables published by the Board of Health. We find, if we consult them, that for thirty-two weeks, dating from and including the week ending the 26th of September, 1874, to and inclusive of the week ending the 1st of May, 1875, the reported mortality from diphtheria has been very much greater than during a like period in 1873–4, and more than four times as great as the average mortality during a like period for the past five years. There is another point that attracts attention, which is that for the past two years the mortality from diphtheria has been remarkably high throughout each entire year. During 1874 the lowest weekly mortality was 14, to which it fell twice, once for the week ending March 28th, and once for the week ending June 13th, the lowest average weekly mortality for the past five years being 5. In September it had reached 22, and then it began to ascend rapidly, and was 42 in October. In November it had reached 65, but fell off again to 41 in December, again rising until 73 was reached for the week ending January 16th, 1875. From this point it again fell off, though it still maintained a high average during February and the first part of March, declining in the latter part of this month to 35. At the end of April the mortality was still 44, as opposed to 24 for the corresponding week of last year, and 10.4 for the average of corresponding weeks for the past five years.

The principal errors in these statistics are due, it is claimed, to the lack of common agreement between physicians as to the application of the terms diphtheria and croup, and the confounding of scarlet fever in some of its forms with the former. As an instance of this circumstance it is said that in England, when the name diphtheria came into usage, many less cases of membranous croup were reported, though at the same time there was no reason to suppose that the disease itself, as described in the text-books, was any less frequent. As far as this point is concerned it cannot be shown that the recent discussions on the identity or non-identity of diphtheria and membranous croup have affected the statistics adversely for membranous croup On the contrary, the number of reported deaths from membranous croup has been even larger than usual. Taking the statistics of the thirty-two weeks already spoken of we see that the number of deaths is reported at 531, as compared with 512 for a corresponding term in 1873–4, and 435.2 for the corresponding term averaged for the past five years.

From this record it would appear that the excessive mortality from diphtheria was not due to the inclusion of croup cases among them. With scarlet fever this is perhaps different, for we find that during the thirty-two weeks mentioned the mortality was 409, as contrasted with 749 for the corresponding period in 1873–4, and 623.8 as the average for corresponding periods in the last five years. Here, then, the mortality was considerably less than the average, and notably less than for the preceding year, and it may well be that abortive cases of scarlet fever were assigned to the diphtheria list. Still, even if this allowance be made, and it be assumed that scarlet fever had as many victims during this season as during the preceding one, we still find that the sum of this number added to the reported deaths from membranous croup gives only a total of 1,280, as compared with 2.461, the grand total of the actually reported deaths from the three diseases, thus leaving a balance of 1.181 in favor of diphtheria, against an actually reported sum of 1,521, and a general average mortality for the same period for five years of 393.6. So that, even if all these deductions be made, it would appear that the actual number of deaths from diphtheria has been about three times the average number. There are some other interesting statistics that may be gleaned from these reports. During this period of thirty-two weeks the reported cases of membranous croup fell as low as 4 per week, and never exceeded 29, though they reached that figure twice, and then diphtheria was very high—at 50 and 73. There does not seem to be any constant relation, however, in the rise and fall of the two diseases.

Scarlet fever, as we have before observed, was less frequently reported as a cause of death. The lowest weekly mortality was 3, when diphtheria was 48, and the highest was 20, which was reached on two occasions. As with membranous croup, there was no constant ratio in the mortality of the two diseases.

When we take the sum of the deaths from these three diseases during these thirty-two weeks, we find that there is only an excess of 113 over the same period in 1873–4, though nearly a thousand more than in the same weeks averaged for the past five years. These facts point unmistakably to a rapid increase in these diseases which truly justifies solicitude on the part of physicians and the public.

What are the noticeable facts in regard to its locality in New York? One thing is pretty certain, viz., that it has prevailed most extensively among the poorer classes and in those particular parts where attention to general sanitary measures has been least observed. This is a valuable point, and if we could only determine whether the proportional number of those attacked, or even of the fatal cases, were greater among the poor, and in association with deficiency in attention to sanitary matters, we should be in the possession of a valuable item of information. Unfortunately this is a problem that we have no means of solving. Where a given area of the city furnishes the largest number of deaths from diphtheria, there also are generally the largest number of families living together, and we should naturally expect, *cæteris paribus*, that at these points there would be the greatest mortality from any disease. As yet we have no means of knowing the actual number of the population to a given area, and therefore can reach no definite results in this direction.

This much may be said, that certain localities appear to favor the disease, whether this is accidental merely or not, for the disease has usually selected particular points in each epidemic, and, starting from them, has moved in a definite direction. The east and west sides of the city have been particularly visited. A glance at the excellent maps which have been devised by the Sanitary Superintendent of the city to illustrate this subject, shows that on the west side especially there has been a special focus of trouble in the district lying between Thirty-ninth and Forty-second Streets, and between Ninth Avenue and the river. This portion of the city is one of the principal centres for slaughter-houses, both for hogs and bullocks, and much of the area is given up to cattle-pens and receiving-yards, all of which are unavoidably offensive in the way the slaughtering business is conducted at present. Many of the population live in cabins on the rocks, where, of course, there is no proper escape for their waste, while about them is a great deal of new-made land. The disease seemed to develop a certain amount of intensity here, and then began to move slowly and somewhat irregularly downwards. On the east side the condition was somewhat similar, except that the focus was not so clearly marked, and its course downwards towards the lower part of the city was even more irregular than on the west side. The central districts of the city have only been invaded at isolated points. There is far less regularity, however, in the spread of diphtheria than of such strongly contagious diseases as small-pox. In the one case, there are comparatively few cases in a single block, and they are often pretty uniformly scattered over a large extent, while in small-pox the cases are often so crowded together that a dozen or more may occur in a single block within a very short time, while the scattered cases will be exceedingly few.

It may safely be said that diphtheria does not appear to have any connection with the distribution of the old water-courses of the city, but also that a large number of cases have originated without any suspicion of contact with the diseased matter in any form, while in some of these instances sanitary defects of a very serious kind have been found in the dwellings, making it highly probable that noxious emanations and the like have produced the disease. It may possibly be due to the foul emanations from slaughter-houses and other nuisances, or it may arise from some accident or neglect in one's own dwelling, where it was supposed that every sanitary regulation was vigorously enforced. Such might be the explanation of the following interesting case: A prominent physician of this city was suddenly taken ill with diphtheria, and was confined to his room for five days. On recovering, and making a careful inspection of his premises, he found that in some unknown way the soil-pipe carrying the waste from the adjoining houses had burst, letting in upon his cellar floor a collection of rottenness and filth that was of the most disgusting kind. It is difficult always to be able to make a careful examination of the premises in this way, but it seems probable that if each case of diphtheria were carefully investigated, a large number of the so-called idiopathic cases might be traced to some such source. Many similar instances probably occur to the mind of most practitioners, and there seems to be no reason why such influences as these described should not in many cases be causes of diphtheria, just as they may often produce typhoid fever, puerperal fever, and erysipelas—an opinion that is beginning to be very generally held.

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Dr. J. M. Cornelison.—At a special meeting of the District Medical Society for the County of Hudson, N. J., held in the rooms of the Young Men's Christian Association, on the 27th of May, the following resolutions were adopted:

Whereas, in the ripeness of age our friend and colleague Dr. J. M. Cornelison, first President of our District Society, and one of its charter members, has been summoned from time to eternity, a shock of wheat ready for the sickle; we, prompted by deep sympathy for those who were dear to him by ties of consanguinity, as well as high regard for the memory of the departed, have met together as members of a common profession, to give expression to our feelings upon this sad occasion.

Resolved, That in the death of our esteemed friend, whose urbanity and kindness of heart had endeared him to us all, we recognize the hand of Providence, and the march of time; and as we bow in submission to His will, we cannot but give expression to the sadness that fills our hearts at this dispensation.

Resolved, That this mournful event has taken from our midst one whose honorable and generous character had won our esteem and the respect of the whole community.

Resolved, That a copy of these resolutions be published in the daily papers, Medical Record, and *Medical and Surgical Reporter*.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.*

Stated Meeting, May 20, 1875.

DR. S. S. PURPLE, PRESIDENT, in the Chair.

First Meeting of the Academy at its own Home.

AFTER the reading of the minutes of the previous stated meeting, the PRESIDENT, with a feeling of sincere pleasure and congratulation, formally welcomed his fellow members to their own home. As men reckon time, a generation has not yet passed since this institution sprang into existence, and from its very beginning up to this auspicious hour, it has been its aim and purpose to keep pace with the wants of an advancing profession. It had been deemed proper that the deed of the building, and other papers held in trust by the Committee of Ways and Means, should be formally transferred by its chairman to the trustees of the Academy, by giving an account of their stewardship, and accompanying the same with such recommendations as they in their wisdom may deem expedient.

Report of the Committee of Ways and Means, and formal transfer of Papers to the President of the Academy.

DR. ANDERSON, Chairman of the Committee, then presented the report, and remarked that it afforded him great pleasure to present these papers as evidence of the completion of the work required of this Committee, after which he gave a brief review of the early associations, scenes, and expressions which gave birth to this institution, and of the work which had culminated in a reunion in its own home. In the early history of the Academy, it was contemplated to establish a hall, a library, and a museum, independent of any hospital or other building, for the use of the profession. The Fellows of the Academy now numbered over three hundred and fifty; and all should arise to the work yet necessary to be sure of all they would realize in what is embraced in the full meaning of the word *home*. They should not now rest satisfied, but should at once take the initiatory steps for securing a site upon which a building of sufficient size could be placed—to furnish room for a hall, a library, and museum, which shall make it a great medical centre, both attractive and scientific.

The President received the papers with appropriate remarks, in behalf of the Academy and Board of Trustees, and Dr. Oliver White, Chairman of the Board of Trustees, accepted the custody of the papers which now became the property of the Academy. In assuming this trust he expressed, on behalf of his associates and himself, their acknowledgment of satisfaction for the great work done by the Committee of Ways and Means, and that it should be their constant effort to discharge the duty, in caring for their trust which the charter of the Academy contemplates. He expressed his earnest desire that the Committee of Ways and Means might be continued until the happy day shall arrive when the debt now upon the home will be completely wiped out. He then offered a resolution, tendering the thanks of the Academy to that Committee for the faithful manner in which they had performed their duties, which was unanimously adopted.

PORTRAIT OF DR. JOHN STEARNS.

The SECRETARY read a letter from the family of Dr. Stearns, which had been accompanied by a portrait of their father as a donation to the Academy.

DR. JOEL FOSTER offered a resolution, tendering the thanks of the Academy for the portrait presented by the family of Dr. Stearns.

DR. PURPLE gave a brief biographical sketch of Dr. Stearns, who was the first President of the Academy.

Dr. Stearns was born in Willoughby, Mass., in 1770. He attended lectures in the University of Pennsylvania, in 1792–3, and in 1793 took up his residence in Saratoga County, N. Y. Dr. Beck gives Dr. Stearns the credit of rescuing ergot from the hands of empiricism, and making it a recognized article of the materia medica. He came to New York in 1819, and died in the year 1848, of pyæmia, from a wound accidentally received in the prosecution of professional duty. The resolution of Dr. Foster was unanimously adopted.

DR. HUBBARD in the chair, Dr. WILLARD PARKER offered a resolution of thanks to Dr. Purple for the sketch of the life of Dr. Stearns. Adopted.

PORTRAIT OF DR. JOSEPH MATHER SMITH.

The Secretary read a letter from Dr. Gouverneur M. Smith, through which the portrait of his father was presented to the Academy.

DR. WILLARD PARKER, as a colleague of Dr. Smith, offered, with appropriate remarks, a resolution tendering the thanks of the Academy for the donation.

DR. ELISHA HARRIS seconded the resolution with remarks highly eulogistic of the life and character of Professor Smith, as shown by his sympathy for his fellow-men, for his medical brethren, and his labors for the development of scientific truth. Upon his entire nature the signet of true nobility was set.

The resolution was unanimously adopted.

PORTRAIT OF DR. GILBERT SMITH.

The Secretary read a letter from Mr. Charles D. Smith, which had been accompanied by a portrait of his father, one of the founders of the Academy.

DR. J. G. ADAMS referred to the high reputation and integrity of Dr. Smith, and spoke of one trait in his character which was worthy of special mention, and that was his deep interest in the welfare of the younger members of the profession. At the close of his remarks he offered a resolution tendering the thanks of the Academy for the donation, which was unanimously adopted.

PORTRAIT OF DR. GALEN CARTER.

The Secretary read a letter from the family of Dr. Carter, accompanying the portrait presented to the Academy, and DR. GURDON BUCK offered a resolution tendering the thanks of the Academy for the portrait received.

DR. A. C. POST seconded the resolution with a few choice words, in which he paid a high tribute of respect to Dr. Carter, as a man with a professional and social relation remarkable for his high sense of honor and unexceptionable integrity.

The resolution was unanimously adopted.

A letter from Dr. John G. Adams, Corresponding Secretary of the Academy, was then read, through which he presented to the Academy bronze busts of two of the ancient masters in medicine, Æsculapius and Hippocrates.

DR. GARRISH moved that the thanks of the Academy be tendered to Dr. Adams for his valuable gift, which was unanimously adopted.

At this point the PRESIDENT remarked it was possible that some of the members of the Academy had not been called upon by the Committee of Ways and Means, and if so, all may feel it to be their privilege to contribute whatever they shall feel able, which will be gratefully accepted.

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* By some oversight the appearance of this report has been delayed until this time. Inasmuch as it involves a matter of historical interest we have concluded to publish it, notwithstanding.

Dr. Anderson remarked that one hundred and twenty-five Fellows had subscribed, and one hundred and fourteen of that number had paid, and announced that the Treasurer could be found at 113 University Place, ready to receive any subscription which the Fellows of the Academy, or any one else, may be pleased to make.

The President then called upon Dr. Detmold, who remarked that he belonged to a class of men who were gradually disappearing, and will soon become entirely extinct. He hoped no one would think him presumptuous in making this statement, for of the original members and founders of the Academy, all except twenty-five or six had been removed by death. He well remembered when the meetings of the Academy were held in a dingy room above a coal-yard in Wooster Street, and he might also state that the discussions of those days bore to the discussions of the present day about the same relationship that the dingy rooms over the old coal-yard bears to the elegant apartments in which they were assembled. The Academy had improved in many respects.

The Doctor then indulged in some reminiscences relative to the origin of the idea of securing a building for the Academy, and said in conclusion that he regarded this hall, elegant as it is, in the same light as he formerly regarded that dingy old hall in Wooster Street. He regarded that hall as simply a starting point, and he now looked upon this elegant hall in no other light than a starting-point—a new departure, if you choose; for he felt sure that very many of the Fellows now present would be able to look back to this evening and upon this hall with the same pride with which he looked back upon the old coal-yard hall. He could see no reason why the Academy should not have, and that within a reasonably brief period of time, an appropriate fire-proof building with all the necessary appurtenances, which should be worthy of the profession and worthy of the Capital of the New World.

The Secretary then read a letter from Dr. Austin Flint, in which he expressed his great disappointment in not being able to be present, and desired the Academy to accept the assurance that he should be at the meeting in spirit, although unavoidably absent in person. The circumstances which prevented his attendance were beyond his control, and he claimed the privilege of imposing a fine upon himself for his absence, and enclosed the same.

Dr. Willard Parker being called upon, remarked that he regarded this institution as the centre of the medical profession in this city. It has been said by some that the Academy of Medicine was not necessary, because there were now so many regularly organized medical societies in existence among us; but if we look at this matter in one way, we shall find that the Academy is the centre and parent of the whole. The Academy is not a specialty, but associates in itself all specialties. This Association is to be the great organizer and controller of the profession of this city. The associations outside are the working departments, in a certain way, and each in its special department is exceedingly effective and useful. He spoke of the labors already performed by this Society, and that it is now in the way of accomplishing more than it has at any other time, for he regarded the generosity of the medical profession as transcending that of any other body of men in the world. He expressed the warm desire that every member of the Academy should give according to his ability, whether a small or a large amount, and thus have a share in this institution. Let no one hesitate to contribute because he cannot pay a large sum, for it is not always the large amount that carries with it the true value. In the matter of securing a still larger and more commodious building, there is no need of great haste. Some of the greatest and most magnificent structures in the world have been completed only by many years of toil, and the same determined action which has secured those should characterize the efforts put forth by this Academy of Medicine.

Dr. Anderson announced that it was the intention to secure a photograph of the old hall over the coal-yard.

At the conclusion of the ceremonies the members repaired to the basement, where a bountiful repast awaited them.

Stated Meeting, June 3d, 1875.

Dr. S. S. Purple, President, in the Chair.

RUPTURE OF THE PERINEUM—ITS PREVENTION AND CURATIVE TREATMENT.

Dr. E. Noeggerath read a paper upon the above subject, and had been led to do so from the fact that, notwithstanding the thorough discussion it has received at the hands of authors, and comes so frequently under the observation of the physician, he had become convinced, from late discussions in the New York Obstetrical Society, that it is worth while to go over the ground again. As the matter now stands it is a difficult question for the young practitioner to decide what he is to do when he meets with a lacerated perineum.

The remarks of the writer were confined exclusively to practical points in connection with means of preventing the occurrence of the accident, and of curing the injury done when it has taken place. The only reliable method of determining whether rupture of the perineum has taken place or not is by inspecting the parts. The term should include only those lacerations which reach near to or even involve the sphincter ani muscle.

To guard against the occurrence of the accident it is necessary to be acquainted with the circumstances which may favor it. These circumstances were considered under the head of presentation first, and the fourth position was regarded as the one in which rupture is most apt to occur. Smaller heads are more commonly accompanied by rupture than larger ones, and this is not strange.

The two principal conditions for guarding against the accident are:

1. Slow and gradual dilatation.
2. Equable distribution of pressure upon the periphery of the vaginal aperture.

There is a condition of the tissues characterized by a peculiar bluish color, indicating that they are unhealthy, which renders it impossible with the greatest care to prevent rupture from taking place. With regard to forceps being a prolific cause of rupture of the perineum, he had become convinced by his own experience that if rupture does occur while using the instrument, its location does *not* coincide with the position of the lower edge of the blade. Exceptions to this rule do occur, but they are only exceptions. There is no doubt about the fact that the proportion of ruptures is larger when forceps are used, but the reason consists in the additional fact, first, that the blades of most instruments are too wide, and second, for obvious reasons, instrumental deliveries are terminated too rapidly, and the advice to extract the head in the interval of two pains is not generally observed. In faulty positions of the head the forceps may be an efficient means for saving the perineum from rupture. To prevent too rapid expulsion of the head chloroform is an efficient agent.

Among the means mentioned for the prevention of rupture were incisions upon each side from the vulva towards the ischii, and made with a bistoury or scissors.

A large number of ruptures of the perineum heal up without any interference in the way of operative procedure, but the parts are not thus reinstated to their natural condition.

The only rational method of treatment is to apply sutures as soon as possible after delivery, and the reason why the early operation has been abandoned for some time is because of want of knowledge of those conditions which are requisite to insure success. From various statistics it was claimed that success is obtained in about 75 in 100 cases, and some physicians cure every case upon which they perform the operation. The adoption of the immediate operation does not exclude contraindications, but a low condition of vitality is the only one to be taken into consideration in this connection.

The extent of the rupture itself should not be accounted as an indication for delaying the operation. Another contraindication which has been urged is the danger of puerperal fever induced by the spread of poisonous elements from the canal of the sutures, especially at the time of their removal. If this was the case, it should be especially noted in New York, where this disease is so prevalent, but it has been determined that those patients whose perineal ruptures have been united immediately after the accident, stand the best chance in an epidemic of child-bed fever, and it is reasonable to expect that the closing up of a torn surface should diminish the chances of absorption from such surfaces. The method is in every case, where rupture is anticipated, to give chloroform when the head is impinging upon the perineum, in order to have the operation performed before the patient has returned to consciousness, or to spare the patient pain when the incisions are decided to be made. Except the paring of the edges, the method of operation is the same as when the operation is performed upon an old rupture.

The paper being open for discussion, **Prof. Barker** remarked that he did not propose to go over the entire ground connected with the subject, for he had already discussed it with considerable fulness in his work upon puerperal diseases, consequently his views were quite well known to the members present. In the first place, however, let us look at some of the causes which pertain to ruptured perineum. We have anatomical causes, various physiological causes, causes due to reflex phenomena, causes due to the mechanism of labor, causes due to instrumental delivery, and *each one of these* is to be met by certain special means for the purpose of preventing this accident. Among the anatomical causes mentioned is the straight sacrum, difference in direction of the vulvar opening—in some being almost parallel with the axis of the abdomen, in others parallel with the axis of the vagina—and difference in size of the vulvar opening.

The condition of the tissues referred to by the author of the paper, characterized by a bluish color, etc., he did not remember to have observed. There is, however, in some perinei, a deposit of a considerable proportion of adipose tissue which predisposes to rupture. Long-continued pressure of the head against the perineum destroys its original power to yield and be dilated without rupture, and in such cases the forceps become a most useful means of prevention. There are also certain physiological conditions which predispose to rupture of the perineum. Certain cases of labor are accompanied by a nervous condition which leads the woman to make violent efforts at expulsion, and the head may be driven through before proper dilatation can take place. It is a matter of observation that this class of patients are very apt to have rupture take place.

There are certain mechanical causes; for example, such a position of the head as gives rise to large dilatation without gradual dilatation. In certain of these cases it is almost impossible to prevent rupture. The forceps may be a mechanical cause of rupture, and they may be a most efficient means of preventing rupture, especially in that class of cases where injury to the tissues may result from long-continued pressure upon the perineum.

The danger in the use of forceps arises from the fact that they are used as instruments of direct traction, instead of instruments to complete a normal process, a physiological delivery of the head. While speaking of the prevention of rupture, he mentioned a method of procedure which was resorted to in a case of right occipito-posterior position that he had not seen mentioned in any of the text-books. An attempt was first made through the vagina to rotate the occiput into the anterior position, but it was found impossible, for the occiput would rotate back into the hollow of the sacrum at once when the hand was removed. The woman was then carried profoundly under the influence of chloroform, the left hand introduced, and with a good deal of effort he succeeded in pushing the head up out of the pelvic cavity; and then with the right hand upon the abdomen rotation of the trunk was effected, so that he brought the occiput around, and then he pressed the head under the symphysis pubis, and soon completed delivery without rupture and with a live child. He was quite sure that by this operation he saved the perineum, and also the life of the child.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, May 21st, 1875.

Dr. Loring, Vice-President, in the chair.

Ankylosis of the Temporo-Maxillary Articulation of long standing.

Dr. D. H. Goodwillie presented a patient, together with the history and treatment of the case, in which the above condition had been present. The patient, a girl aged ten years, who was sent to him by Dr. Sayre, fell over the bannisters when she was five years old, and, it was supposed, received a fracture of the condyle of the lower maxilla through its neck upon the right side. Ankylosis followed. When the patient was seen by the doctor, in October, 1874, there was ankylosis, atrophy of the depressors, and contraction of the levator muscles. The treatment had consisted in the use of electricity to assist in restoring vitality to the muscles, together with manipulations while the patient was under the influence of nitrous oxide gas. After some progress had been made, a special apparatus was employed for making traction upon the contracted tissues, assisted somewhat by sections of tissues upon the inside of the mouth, and now, after about seven months of unremitting effort, the mouth could be opened nearly an inch, and motion was very free. The girl was able to masticate with the molar teeth, but was not able to close the mouth so as to bring the incisors in contact. The case was an interesting illustration of what can be accomplished by perseverance in treatment. The nitrous oxide had been exhibited nearly one hundred times as a rule, every other day—and the doctor was of the opinion that he would have failed in obtaining relief in this case had it not been for the assistance afforded by this agent.

Dr. Post remarked that the success obtained in Dr. Goodwillie's case illustrated a principle, namely: that cicatricial contractions can be overcome, but not without long-continued effort and perseverance. He had for himself proven conclusively that the disposition to contraction in cicatricial tissue can be so overcome that it will not return. It requires great patience to accomplish this, and sometimes the assistance afforded by tenotomy and myotomy becomes necessary. By passive motion, exercise, encouraging the muscles to act, and stretching the tissues, perhaps cutting, the difficulty can be gradually overcome. This principle is illustrated in almost every form of cicatricial contraction. It is well illustrated in stricture of the urethra, where by stretching the parts with very large instruments, occasionally using the knife and following it by excessive stretching, perhaps sufficient to permit the introduction of No. 35 or 40 of the French scale, the disposition to contract is ultimately overcome, and the urethra remains free for life.

A vote of thanks was given for the paper, and the Association adjourned.

Correspondence.

MEDICAL ADVERTISING.

To the Editor of Medical Record.

Dear Sir:—In The Record for May 29th I propounded a question for your consideration, whether the publication of the "Protest" in a daily paper was not in violation of the "Code of Ethics." You remark: "We cannot believe that the publication was sanctioned by the gentlemen signing the document, but that it was the result of a mistaken policy and short-sighted enthusiasm of some one of the interested parties." You add: "Such documents are always out of place in a secular paper, and always tend to lower the profession in the estimation of the public." In this opinion, Mr. Editor, I most heartily concur. I never, for a moment, thought of charging upon the many honorable signers of this "Protest" the imputation of desiring to see their names or titles published in a daily paper. I know that it was done (as regards the majority of them) without their consent or knowledge. The charge of having violated the Code of Ethics rests, therefore, upon the parties who furnished a copy of the document to *The Tribune*. I do not presume to judge of motives, but of one thing I am very sure, they did not thereby intend to benefit the institution in the estimation of the contributors or general public.

I beg leave to submit for the perusal of these "inexperienced parties" the following extracts from our "Code of Ethics:"

"Advertisements indicating locations and residence are the utmost limits of self-announcement consistent with professional dignity. All referring to special branches, as extra inducements to patronage, should be deemed a violation of the code of medical ethics."—*Transactions State Medical Society*, 1865.

"It is derogatory to the dignity of the profession to resort to public advertisements."

"As peculiar reserve must be maintained by physicians towards the public in regard to professional matters, and as there exists numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject matter of such differences, nor the adjudication of the arbitrators, should be made public, as publicity, in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty."—*Code of Medical Ethics of American Medical Association.*

Mr. Editor, the Code of Ethics, adopted by all honorable members of our profession, has answered my question.

Should your courtesy accord me the requisite space I propose, in another letter, to show that the recent action of the managers was not only justifiable (and therefore right), but that there are in abundance precedents of similar character to warrant their procedure.

"Medicus."

SPECTRAL ANALYSIS.

In order to avoid any further discussion in regard to the questions connected with the subject of spectral analysis, which have from time to time claimed the attention of our readers, we have undertaken to present the facts of the case from an impartial standpoint. The main point in dispute between Drs. Waterman and Piffard has reference to the charge of misquotation on pages 247 and 367, and as all the facts connected with such a charge are matters of record, there is no better way of appreciating the merits of the case than by a careful comparison of the statements of each of the gentlemen. This we shall undertake to do by arranging the questions and answers in opposite columns.

Dr. Waterman says:	Dr, Piffard says:
I.—Oct. 15, 1874.—"Professor Draper, of this city, whose merits in this direction are gratefully acknowledged, has given to us a map containing a great number of sun-lines, invisible under ordinary circumstances, but which can be made visible under certain favorable conditions; these additional lines are made evident at both the red and violet part of the spectrum, making it of course longer than usual."	I.—Nov. 16, 1874.—"A similar error is committed in reference to Prof. Henry Draper, who 'has given us a map containing a great number of sun-lines, invisible under ordinary circumstances; these additional lines are made evident at both the *red* and violet part of the spectrum.' The fact is, Draper's photograph shows no lines in red, orange, yellow, or green, for reasons known to every photographer and physicist."
II.—Vol. X., page 84.—"In my lecture I stated that Professor Draper has given us a map containing a great number of sun-lines, invisible under ordinary circumstances; these lines are made evidently at the red and violet part of the spectrum."	II.—Vol. X., page 133.—"Dr W., in his reply, reasserts that some of the lines in Draper's map 'are made, evidently, at the *red* and violet part of the spectrum.' (I italicize the word red.) The following, I think, will be sufficient evidence of Dr. Waterman's error." [Then follows Dr. Draper's letter, in which he (Dr. D.) says that the *red* portion is not included in his (Dr. D.'s) map.]
III.—Page 213.—2. "These additional lines are made *evident* (not evidently, as Dr. P. has it) at both the red and violet part of the spectrum, making it of course longer than usual." . . . . . "These additional lines are *made evident* (not '*evidently!!!*') at both the red and violet part of the spectrum."	III.—Page 247.—"In his letter of March 20 (page 213) Dr. W. denies using the word 'evidently' in a certain connection. If the reader will turn to Dr. W.'s first reply to me, Record, Jan. 30, p. 84, third paragraph, he will find this word exactly as I quoted it in mine of Feb. 20."
IV.—May 22, 1875.—"In my	IV.—[Comparison of the lines in

original lecture, see RECORD, October 15. 1875. which Dr. P. undertook to criticise. I stated 'that sun-lines invisible under ordinary circumstances can be made *evident* at both the red and violet parts of the spectrum.'"	quotation marks with extracts I. and II. of Dr. Waterman will show that a mistake has been made in quotation and in meaning.]
V.—Page 213.—"It is interesting to observe how this plain statement of Dr. Draper demolishes Dr. Piffard's theory, 'that no lines in red, orange, yellow, or green can be photographed, for reasons known to every photographer and physicist.'"	V.—[Comparison with Extract No. 1. (Dr. Piffard) will show it to be a misquotation. Dr. P. merely denied that the red lines appeared in Draper's map.]
VI,—Jan. 30, 1875.—"I am further reminded 'that the vibrations of heat and light take place in the luminiferous ether, and that the light waves travel at right angles.'"	VI.—Nov. 16, '74.—"While the vibrations of heat and light take place in the luminiferous ether, and that the particles of this ether move in a direction *at right angles* to that in which the waves are progressing."
VII.—Page 213.—"Dr. Piffard states that I misquote him in paragraph nine of my reply. As I have not numbered my paragraphs, I presume he has reference to his luminiferous ether light and heat theory. I most positively deny the charge. I have quoted him verbatim, with the exception of his uncalled for remarks."	VII.—Feb. 20, 1875.—"In paragraph ninth of his reply, Dr. W. *misquotes* me, as reference to THE RECORD of Nov. 16th will show." (See Ext. VI.)
VIII.—Page 531, Vol. IX., Oct. 15.—"We will find that these qualities of hæmato-crystalline are of the greatest importance in medico-legal cases. When the outer form and integrity of the blood-corpuscles have been destroyed by the various means which the criminal may find within his reach, and when the microscope sends our questions back unanswered, it is yet perfectly practicable to produce the crystals."	VIII.—Nov. 16, 1874.—"The fact is, that crystals of hæmato-crystalline can only be obtained from fresh. and not from dried or chemically altered blood."
IX.—Page 35, Vol. X.—"So also must I maintain what I 'said in my lecture,' that when the outer form of the blood-corpuscle is destroyed by chemical or mechanical means, we may demonstrate blood by producing the crystals!"	IX.—[By reference to Extract VIII. (Waterman) Dr. W. claims in his lecture that hemato-crystalline can be obtained from dried blood: but in Ext. IX. (Waterman) Dr. W. claims that he can demonstrate the blood by producing the crystals, and names several kinds of blood-crystals which can be produced, which Piffard had not disputed.]
X.—Page 85. Vol. X.—"Preyer, the best authority on this subject, says in his work, 'Die Blutkrystalle,' p. 5: 'Blood crystals are not only hæmato-cryst.' but Teichman's Hæmin, Hæmatin, Hæmatoidin, and Hæmatoin.' When and where did I say that from chemically altered blood we may obtain hæmato-crystalline? Nowhere."	X.—Page 134.—"An incorrect quotation from Preyer, in the next paragraph of Dr W.'s reply, would convey the idea that Preyer places the substance commonly called hæmatin among the blood-crystals, which is not a fact, Preyer stating, at page 196 of the same book, that it is an amorphous substance."
XI.—"But when Dr. P. says I made an incorrect quotation from Mr. Preyer, I must deny the charge."	XI.—[The original passage in Preyer reads as follows: "Blutkrystalle hingegen heissen auch das Teichmannsche Hämin, das damit identische Lehmannsche Hämatin in krystallisirten zustande, und das Virchowsche Hämatoidin, wenn es sich krystallinisch in alten Blut extravasaten findet. Auch meine Hämatoinkrystalle können Blutkrystalle genannt werden," u.s.w. In this passage we find that Preyer mentions *three* kinds of crystals besides hæmato-crystalline, as Lehman's hæmatin and Teichman's hæmin he expressly states to be identical substances. Waterman in Ext. X. makes Preyer say that there are *four* kinds besides hæmato-crystalline.
XII.—Oct. 15, 1874.—"Kirchof left us a map of these lines, a masterpiece of correctness and skill, containing many hundreds of sun-lines, and our distinguished Rutherford has photographed them right from the sun himself. The exactness of these two mappings is truly wonderful."	XII.—Nov. 16, 1874.—"The facts are. that only a comparatively small number of lines in Kirchof's maps are coincident with those in Rutherford's photograph, due to the fact that the whole mass of lines from A to about F, on Kirchof's map, could not be obtained photographically by Rutherford's processes, and the additional fact that the immense number of lines, more refrangible than the line H, which are found in Rutherford's belong to the ordinarily non-visible portions of the spectrum."
XIII.—Jan. 30, 1875.—"I am not aware that I have anywhere stated that Rutherford photographed ALL sun-lines from the sun itself. I desired to convey the idea that sun-lines *were thus photographed*, nothing further. The two sections of mappings to which I had reference were those published by Professor Roscoe, in his work, 'Spectrum Analysis,' page 206, second edition; they contain each about 130 sun-lines, laying between **E** and **G**, extending from the 194th to the 220th degree of Kirchof's scale."	XIII.—Feb. 20, 1875.—"Dr. W., in reply to my criticism concerning spectrum photography, states that he referred to the portion of Kirchof's map reproduced in Roscoe, and which contains 'about 130 sun-lines.' Now, in his first paper he refers to Kirchof's map in this connection as containing 'many hundreds of sun-lines.'"
XIV.—March 20, 1875.—"He says hæmatin has never been crystallized."	XIV.—[Reference to Ext. 10 will not support this assertion. Dr. P. simply said thaf *Preyer* stated that it was not a crystallizable substance.]

G. F. S.

HOSPITAL APPOINTMENTS AND DISAPPOINTMENTS.

To the Editor of The Medical Record.

SIR:—One would suppose from reading the letters that have appeared in the columns of *The Tribune* and MEDICAL RECORD that the managers of the Presbyterian Hospital had treated their medical staff in a manner almost unprecedented, and the warmth with which the professional friends of the four gentlemen who are aggrieved have publicly and privately espoused their cause would make it appear that the highest rules of honor are observed among members of the profession in their hospital relationships. Early in this controversy—if it can be so called when the talking is all on one side—it was said that only once before had a physician lost his position in a New York hospital in so summary a manner; and even that was justified by the ill-health of the person deposed. But we do not need to go so many years back to find two instances which created so much comment at the time that we might be surprised that no reference had been made to them, did we not know that some of the very gentlemen who signed the "Protest" were the instigators or abettors—so it is generally considered—of the removals.

With your permission I will refresh the memories of some of those letter writers. In 1870 one of the best known physicians in this city and country wrote and published a scientific paper which contained demonstrable facts regarding the mortality of foundling children when cared for in public institutions. These statements incurred for him the displeasure of the *First Directress* of one of the hospitals of this city with which this physician was connected, and through the instrumentality of his fellow-members of the medical board he was crowded out of his position with the threat that he must resign or be "dropped." Not the slightest intimation was then made, so far as I am aware, by any of the gentlemen who signed the protest, that the physicians who remained on the medical board had in any way acted in an "unprofessional" manner towards their comrade, nor were there any published sneers at the character or standing of the physician who accepted the position left vacant, and whose name, together with most of those who were members of the board, appears among the signers of the protest.

Less than a year ago the Commissioners of Public Charities and Correction made, without explanation, such a change in the organization of the Medical Board of Bellevue Hospital that several physicians who had served for years in such a manner that they had won credit for themselves and honor for the hospital, were dropped without a word of explanation, or acknowledgment of the services they had rendered.

It has been generally believed (and I have yet to hear it contradicted) that the change was made at the solicitation of other members of the board, for the purpose of advancing the interests of themselves and their friends. Yet these gentlemen have no scruples about signing a protest against the late action of the Board of Managers of the Presbyterian Hospital. Since it has pleased some of the writers in this controversy to speak in an uncomplimentary way of the four physicians who have accepted positions in the Presbyterian Hospital, it may be *apropos* to remark that one of them was appointed on the reorganized Bellevue staff, and nobody took any exception to him in that connection.

The fact of the matter is, that one clique of physicians and surgeons has attempted for years past to manage the appointment of members of the medical boards of several of our important hospitals, and have thus far succeeded so well that some of them hold, individually, appointments in several institutions. Whatever furthers their interests is declared by their friends to be for the interest of the profession, the institution, the cause of medical education, etc., as the case may be, but any action on the part of managers, rival schools or cliques, which attempts to take this control out of their hands is followed by a hue and cry; and one of the striking features of the case is that this is generally done through the secular press. Contrasting the Presbyterian Hospital affair with the others I have mentioned, one is strongly reminded of the fable in the old Webster's spelling-book of the farmer who went to the Justice to settle for the damages done by the farmer's bull, which had gored the Justice's steer. The Justice, it will be remembered, was profuse in his compliments upon the farmer's honesty, until it appeared that it was the farmer's steer that had been gored by the Justice's bull, when, in a remarkable way, the case assumed an entirely different aspect.

VERITAS.

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ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 6th to June 12th, 1875.

BACHE DALLAS, Surgeon.—Granted leave of absence for two months. S. O. 114, Mil. Division of the Atlantic, June 7, 1875.

KNICKERBOCKER, B., Assistant Surgeon.—Assigned to temporary duty at Fort Canby, W. T., relieving Assistant Surgeon Brooke, and, upon assignment of another medical officer to duty there, to rejoin his proper station, Fort Vancouver, W. T. S. O. 69, Department of the Columbia, May 27, 1875.

DELANY, ALFRED, Assistant Surgeon.—Granted leave of absence for three months on Surgeon's certificate of disability. S. O. 116, A. G. O., June 11, 1875.

MUNN, C. E., Assistant Surgeon.—Assigned to duty at Camp Robinson, Nebraska. S. O. 67, Department of the Platte, June 4, 1875.

ADAIR, G. W., Assistant Surgeon.—Relieved from duty at Ringgold Barracks, and to proceed to Fort Duncan, Texas, reporting, upon arrival, to Lieut. Colonel Shafter for duty in the field. S. O. 106, Department of Texas, May 31, 1875.

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GREEN.—Died, on Saturday, June 5, at the residence of his son in-law, Dr. Charles Y. Swan, Morristown, Joshua Green, M.D., of Groton, Mass., aged 77 years.

Medical Items and News.

HORACE WELLS is to have a bronze statue erected in Hartford to his memory, as the discoverer of anæsthesia. The Legislature of Connecticut appropriated, some years ago, $5,000 to be devoted to this purpose, and the city of Hartford gave a like sum. A colossal statue in bronze has been erected by Truman H. Bartlett, and it is proposed that the profession of the country be asked to contribute the amount necessary for defraying the cost of the bronze pedestal. Letters of inquiry may be addressed to Dr. E. K. Hunt, Chairman of the Committee of the Hartford Medical Society. Subscriptions may be forwarded to Dr. G. W. Russel, Treasurer, Hartford, Conn.

DR. B. W. RICHARDSON has been elected President of the Health Department of the Social Science Congress, which is to meet in October next, in Brighton, England.

MEETINGS OF DENTAL ASSOCIATIONS.—The Pennsylvania State Dental Association meets in July, at Cusson Springs, Pa. The American Dental Association meets at Long Branch in August, and the American Dental Society of Europe is to meet during the same month at Hamburg, Germany.

THE FUND FOR THE FLOATING HOSPITAL OF ST. JOHN'S GUILD has been raised to $9,728.50. The Treasurer is Mr. William H. Guyon.

THE COLLEGE OF PHARMACY, at a recent meeting, elected, as the new Board of Pharmacy for the succeeding three years, Dr. Walter de F. Day, Dr. B. E. Hays, Dr. William Balser, T. Frohwein, and Gustavus Ramsperger. The whole number of registered pharmacists in the city was stated to be 1,178, and the names of five pharmacists who were practising illegally were reported. An explanation was given of the mode of conducting the pharmaceutical examination, and an estimate was made that twenty-five per cent. of the candidates examined by the Board during the three years past had failed to come up to the requirements.

DR. BULLARD, of New Haven, Connecticut, has been in practice for about half a century, during which time he has been present at the births of about one thousand children. Such of these children as survive propose to hold a grand pic-nic at the doctor's residence, and the whole affair is to be under a committee of arrangements from the adjoining towns.

RESIDENT STAFF, MOUNT SINAI HOSPITAL.—The positions of House Physician (with a salary), Senior and Junior-Assistant Physicians are vacant. Candidates should apply to Dr. Ernst Krackowizer, 16 W. 12th Street.

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WEEKLY BULLETIN OF THE MEETINGS OF MEDICAL SOCIETIES.

Monday, June 21.—Medical Society of the County of New York, "On the Genesis of an Epidemic of Puerperal Fever," by William T. Lusk.

Tuesday, June 22.—American Microscopical Society; Yorkville Medical Association.

Wednesday, June 23.—N. Y. Pathological Society.

Thursday, June 24.—N. Y. Medico-Legal Society; Brooklyn Pathological Section; Jersey City Pathological Society.

Friday, June 25.—Medical Library and Journal Assoc'n; Dr. Paul F. Mundé, Report on Gynæcology.

Original Communications.

TWO CASES OF INTRA-LARYNGEAL GROWTH—TREATMENT BY EXCISION—CURE.

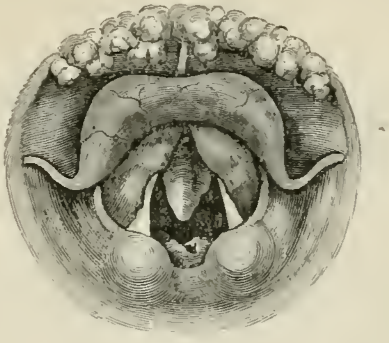
By GEORGE M. LEFFERTS, M.D.,

INSTRUCTOR IN LARYNGOSCOPY, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y., SURGEON TO THE N. Y. EYE AND EAR INFIRMARY (THROAT DEPARTMENT.)

Case I.—*Fibro-cellular polypus in the anterior commissure of the larynx—Excision with the wire-loop—Ecraseur—Cure.*

Mrs. W., æt. 26. The patient stated that she was unable to fix upon any definite period as the commencement of her throat trouble, but that for years she had suffered more or less from the ordinary symptoms of a chronic catarrhal affection of the larynx—notably, cough varying much in character and frequency, expectoration of thick viscid mucus, especially in the morning, and a constant feeling of dryness and irritation, requiring repeated efforts to clear the throat. She had had attacks of partial aphonia, occurring especially after any exposure, and during the continuance of which the above-mentioned symptoms would increase in severity, and had as a rule experienced but little trouble with her throat during the summers, the difficulty recurring regularly, however, with each succeeding winter. Two years ago she contracted a severe cold, and to this, and to the coincident exposure, she attributes all her subsequent trouble. The symptoms described above became much aggravated; she was for the first time completely aphonic, and slight difficulty in the respiration manifested itself. The latter symptoms, she stated, she had never before noticed, and that they were not sudden in their onset, but gradual and continuous in their character, and that since this period they have progressed with increasing severity up to the present time. The voice is now completely lost, and the patient speaks in a rough whisper, vocalization being attended by considerable muscular and peculiar expiratory efforts, and the use of only a few words at a time. She is completely unable to raise the voice, and states that at times it is unrecognizable. The dyspnœa from which she suffers is very marked, the breathing, both in inspiration and expiration, is noisy and stridulous, and can be heard at some distance from the patient; any exertion increases its amount, and for the last year she has had to carefully avoid any cause for accelerating the frequency of the respirations. She further states that she has had occasional attacks of laryngeal spasm, they being, however, comparatively unimportant, occurring generally during the night, and being of short duration. The cough and expectoration still persist, and in addition she experiences a constant sense of obstruction and fulness in the larynx, with occasional pain on pressure. With the exception of this local trouble she has always enjoyed good health. She has an incomplete syphilitic history, dating back several years, but no evidences of the disease can be seen upon careful examination. Auscultation proves the lungs to be perfectly healthy.

The laryngoscopic examination shows the larynx generally to have been the seat of a chronic catarrhal process of long duration. Hypertrophy of the mucous and sub-mucous tissues is general and very marked, especially in the posterior commissure, where the thickened membrane lies in folds and irregular projections, and in the region of the false cords, which latter are so much enlarged that they project beyond and over the vocal cords, so as to nearly conceal them.



In the anterior commissure of the larynx is located a large pedunculated fibro-cellular growth, a form of neoplasm comparatively rare in the larynx, occurring in only about five per cent. of the cases of growths reported. It has a pyriform contour, is smooth, and of a pale pink color, and about the size of an almond. Its short, thick pedicle is inserted, as near as can be determined, upon, or just above, the anterior commissure of the vocal cords, and it lies partly upon and partly between the latter, reaching backwards until its apex approaches very nearly the posterior wall of the larynx. The large size of the neoplasm, associated with the hypertrophy of the false cords, causes a considerable diminution in the calibre of the larynx, there being a very marked degree, and consequently dangerous state of *laryngeal stenosis.* An observation with the laryngeal mirror, while attempts at phonation are being made, demonstrates that the vocal cords cannot approach one another during the act on account of the mechanical obstruction presented by the interlying portions of the growth, and that they assume a curved form, approximating posteriorly only. The direct causes, therefore, of the rational symptoms are fully explained by the physical conditions revealed to us by the laryngoscope.

Operative procedures were at once undertaken for the relief of the patient, and the pharyngo-laryngeal parts proving unusually tolerant to the use of instruments, no time was lost in their preliminary training, but the instrument intended to be used for the purpose of extirpating the mass at once brought into requisition, and the operation itself completed at the first sitting.

The instrument alluded to, the wire écraseur, being at the present time much less used than in the early days of laryngoscopic surgery, except for galvano-caustic purposes, and the conditions of its successful employment being much modified by certain circumstances in connection with the irritability of the patient's pharynx and larynx, the size of the parts, and the character, situation, and form of the growth, as well as the size and form of the instrument itself, a few words regarding the latest modifications in its mechanism, designed to overcome some of the above conditions, may not be without interest in this connection.

The early instruments consisted either of a single tube, as used by Gibb, or the double canula, on the principle of Gooch's, employed by Walker, curved to a proper angle for entering the larynx, and through which the double wire passed, to terminate at one extremity in a loop and at the other in a handle, varying in construction, pressure upon which latter drew up the wire-loop and excised the growth. The difficulty with these instruments was in introducing such a loop into the larynx and successfully encircling a growth, unless the case was one which presented unusual facilities for the accomplishment of the act, among these, tolerance of the parts, and a favorable location of the growth either posteriorly or upon the superior parts of the larynx, standing pre-eminent. The exertion of a very small degree of force, either by impingement against the pharyngeal or laryngeal walls during introduction, or caused by contraction of the latter about the loop after entrance into the larynx, were amply sufficient to alter the form which had been given to it before introduction, so much and so materially, that it was no longer adapted to encircle or pass over the given growth, and the operator was compelled again and again, in many cases, to withdraw the instrument and reshape the loop, persevering until at last success crowned his laborious efforts.

The instrument which was devised some time ago by Prof. Stoerk will fulfil many of the indications desired and in a very simple manner—the principle involved being that the wire should be protected from contact and disarrangement, and this is accomplished by covering it with a double oval, rigid, metallic guard, through which the loop, fully protected, runs; and finally, traction being made upon it by means of the handle to which the extremities of the wire are fastened, compresses the growth between itself and the upper edge of the guard. These metal guards are provided of different sizes, so that one principal objection to the instrument, viz., that the loop cannot be made to assume the diverse forms suited to the shape of the variously formed neoplasms to be extirpated, is partly overcome. A second objection which has been urged against écraseurs in general, that the use of the fine wire causes the instrument to act practically as a *guillotine*, and to rather *cut* than *crush* off the growth, can hardly be urged against this instrument, which, carrying as it does, a large wire, can hardly cut, but must crush its way; and, furthermore, the pressure being applied gradually, the growth will be removed in strict accordance with the true principle of the écraseur.

The process, of course, requires time, and on this account this form of instrument can only be used, as above stated, in tolerant cases and on growths of some size, which, on account of their location, are readily seized and comparatively quickly removed. Very large growths, or those of a vascular nature, for the removal of which the écraseur is thought necessary, will probably demand the preliminary performance of tracheotomy, as a necessary precaution against disastrous results.

A still further improvement in the instrument—suggested, I believe, by Gibb, but elaborated by Stoerk—and a very desirable one when operating for the removal of small growths, consists in the substitution of a small metal tip, perforated in four directions, for the oval protecting guard. The apertures in this tip are threaded with the wire, the direction of the loop being either in an antero-posterior or transverse line, according to the location of the neoplasm, and the wire being thus held by the holes, is effectually prevented from turning from the given direction—a very common occurrence with the old tube-form of instrument. The wire used with this form of apparatus also assists in attaining this desirable result; that formerly used, thin iron or silver wire, very easily losing its shape if pressed upon while entering the larynx, and usually requiring many readaptations to the form of the growth. The steel wire, as used for musical instruments, will be found preferable, having the necessary elasticity and firmness, and therefore fulfilling the indications required.

In the case under consideration, the size of the growth rendered the employment of a large guard necessary in order to pass successfully over it, and the difficulty of easy introduction into the larynx was thereby increased, the size of the guard rendering contact with the laryngeal walls almost impossible of avoidance, and the immediate contraction of the parts which followed obstructed somewhat a view of the entire process of extirpation. By introducing the instrument carefully, however, guided by the reflection in the laryngeal mirror, and causing it to enter the larynx far posteriorly between the arytenoid cartilages, where the greatest amount of free space presented itself, it was possible to then pass forwards and see the apex and part of the neoplasm within the loop, before firm pressure forwards and subsequent constriction of the growth were performed. The first attempt failed, owing to the barrier which the hypertrophied false cords presented anteriorly, and the requisite force necessary to press between them and over the growth being under-estimated, and resulted in carrying the whole larynx more or less forwards before the instrument, and consequently altered so materially the relative positions of the growth and the wire-loop, that complete extirpation failed, and only the apex of the neoplasm was removed. On a second attempt, a few moments later, external manipulation of the larynx was called into requisition, and it was found not only practicable, but also easy, while an assistant first elevated the organ and then pressed it slightly backwards and held it steadily, to carry the oval guard, with its contained wire-loop, directly forwards, nearly into the anterior commissure, and upon drawing up the wire to crush through the pedicle of the neoplasm.

Some embarrassment in the respiration attended the procedure, but the amount of dyspnœa was not excessive and caused no anxiety. Immediate improvement followed the extirpation of the growth, the patient drawing deep, full inspirations, unattended by stridor, and expressing herself in marked terms as to the amount of relief that had been afforded, and a subsequent examination with the mirror showed that, the obstruction being removed, the approximation of the vocal cords was nearly perfect. The stump of the pedicle was seen to be located just above their anterior insertion, reaching well down towards their superior surfaces.

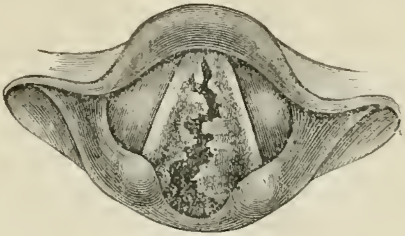
The subsequent treatment of the case presenting no unusual or interesting points, may be summed up in a few words. The patient remained under observation and treatment for several weeks, during which time applications directed against the catarrhal condition of the parts were regularly made to the larynx. The progress towards complete cure, though slow, was sure, being delayed only by the chronic form of the disease and the general hypertrophy of the tissues, and resulting finally in the patient's discharge, the voice being clear and forcible, the respiration unembarrassed and easy.

Case II.—*Papillomatous growths upon both vocal cords—Excision by means of Stoerk's guillotine—Cure.*

The patient, a stout, healthy man, æt. 36, stated that in January, 1872, he suddenly became partially aphonic, and that any prolonged efforts at phonation made at the time were attended with great difficulty and subsequent exhaustion. He knew of no cause for this attack, unless it was due to a prolonged use of the voice in a high and loud key, while under considerable excitement, some few days previously. His business was one that required constant and laborious use of the voice—but he himself had never had his attention called to any change in it, previous to this time—although his friends say that for some months an alteration in it had been apparent to them. He had suffered from time to time from the ordinary symptoms of a catarrhal laryngitis, all of which he considered as being due to exposure. Following this primary attack of aphonia others occurred with more or less frequency, recurring especially after any exertion in speaking, and being progressively more severe and prolonged in their character, until finally, some four months later, he became completely and permanently aphonic, and could make himself intelligible only with difficulty. The respiration was somewhat labored and stridulous in its character, expiration being especially affected, and a curious sensation as of loose bodies flying up in the throat and provoking cough was complained of as occurring with the latter act.

Deglutition had not been interfered with, and he had not as a rule suffered from excessive cough nor expectoration. His general health, as has been stated, was good, and he is free from all syphilitic taint, and has a clear hereditary history. At this time, some four months after the inception of his throat affection, his condition induced him to seek the aid of a colleague, at whose hands he underwent an operation for the removal of the laryngeal growths, which had been diagnosticated by means of the mirror. This operation, according to the patient's account, consisted in the extirpation of several small growths from the larynx by means of a tube forceps, and in subsequent cauterizations, and the result gave him considerable relief, although the voice was but slightly improved.

Some weeks later, the intervening time having been spent by the patient at his home in the country, complete aphonia, after a prolonged use of the voice associated with severe exposure, again manifested itself, and the patient lost even the hoarse whisper which had been the result of the former operation, but without impairment of the respiration as formerly. The condition here described grew progressively worse, according to the patient's statement, although it is difficult to see how it could have done so, and he was finally again obliged to seek surgical aid. My examination of the throat in the summer of 1872 gave the following results: The overhanging and curved epiglottis prevented a full and satisfactory view of the interior of the larynx, only the posterior thirds of the vocal cords being visible,—if, however, phonation be forcibly conducted—it was well elevated and a complete view of the laryngeal cavity thereby obtained, showing that a general catarrhal condition of the mucous membrane existed, it being congested, relaxed, and flecked with a profuse, thick mucous secretion. The true vocal cords were in a highly disorganized state, being of a dirty yellowish gray color, relaxed and dotted with small hemorrhagic spots. They were lined on their free edges and throughout their extent with papillomatous outgrowths varying in size and form. These growths were for the most part on the inner and lower edges of the cords, the largest springing from the superior surface of the right cord, in its anterior third. and having the true polypoid form. Anterior to it and lying beneath the cord, growing from the right wing of the thyroid cartilage, was another smaller growth, which projected out into the lumen of the larynx, and which was hidden when the cords were approximated. The remaining growths were situated along the free edges of the cords, forming a fringe which projected inwards from their inferior boundaries, and were of irregular forms. The superior free edges of the cords were sharply marked



During phonation the action of the cords was feeble and irregular; when forcible, the cords were adducted anteriorly, the rough tooth-like processes on one vocal cord fitting into corresponding depressions on the edge of its fellow. Posteriorly a wide three-cornered opening remained unclosed, the arytenoideus muscle not having sufficient power to compress the intervening obstructions, and approximate the arytenoid cartilages.

Attempts were at once made to remove the various growths by means of the laryngeal tube-forceps, but owing to their soft and friable nature, the instrument was found to be unsuited for the purposes of complete extirpation, and the guillotine of Prof. Stoerk (a description of which has been given by me in a former article *) was substituted. With this latter instrument it was designed to cut the growths cleanly away from the cords at their bases, or even a line below that point, and to remove them entire, leaving no scattered portions behind to serve as a nucleus for the development of new outgrowths, and the result proved its applicability and thoroughness for all the growths, with the exception of those at the anterior commissure. Three sittings were necessary to effect complete clearance of the vocal cords, followed by one during which the "*ball-shaped*" cutting forceps of W*internich* were used to remove the small growths at the anterior commissure of the cords.

No untoward incident occurred during these steps of the operation, the patient, being well trained to bear the introduction of instruments into his larynx, bore the various stages of the procedure well; the latter being of short duration and conducted at frequent intervals.

The hemorrhage following the excision of the masses was but slight, and readily checked by cold and astringent gargles, and the application of ice externally over the larynx.

The growths having been removed, approximation of the cords was rendered possible, and the good result of the operation was demonstrated a few days later to the eye, in the nearly perfect closure of the glottis, and to the ear by the full, almost clear, voice with which the patient phonated, especially the higher notes.

This clearness of voice was subject to partial relapses, due either to an accidental access of the catarrhal inflammation of the cords, or to an overuse of the voice, exhausting the impaired nerve-force of the larynx; both of these conditions improved, however, as time elapsed, and some few weeks later the verdict of cure could be pronounced, with a guarded prognosis regarding recurrence of the growths.

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* N. Y. Medical Record, Feb. 2[illegible], 1874.

The treatment pursued during this time is, for the sake of brevity, not given in detail, but consisted in the ordinary applications, stimulant and astringent, recommended for catarrhal conditions of these parts. One point worthy of note, however, is that no application of caustics was, with one exception, made after the operation, although their use for the purpose of destroying the base of growths is generally recommended, as I believe that in the soft form of the laryngeal papilloma, described above, their use is not only unadvisable, but absolutely pernicious, promoting hyperæmia, increased cell-proliferation, and rapid recurrence of the neoplasm. This view of a clinical distinction between a soft and hard or nodulated form of papilloma is shared by several writers. The former variety occurring on those parts covered by flat epithelium, and showing the greatest tendency to recurrence, while the latter, termed the *pseudo-papilloma* by Lewin, develops at points in the larynx where a papillary structure does not pre-exist; and that interference with caustics in the first form of neoplasm, after as thorough an extirpation as possible by means of suitable instruments, has been demonstrated by experience to be unadvisable, especially as the low vitality of the small portions remaining after an operation has usually been effectually extinguished by the crushing, and in cases where further treatment has been abstained from, rapid atrophy and entire disappearance, as a rule, occurs.

15 West 26th Street.

SUICIDE—EXTERNAL APPEARANCES AFTER DEATH BY HANGING.

By M. A. McCLELLAND, M.D.,

KNOXVILLE, ILL.

Wm. Armstrong, age 44, plough-maker, weight 200 pounds, was found in an out-house upon his knees, body leaning forward, and suspended by a half-inch rope attached to a beam above. The body was prevented from falling much to either side by the wall of the house on his right and by a seat on the left. The noose around the neck was prepared from a piece of packing, such as machinists use about engines. It was just sufficiently long to tie to the end of the rope and to form a noose with a loose knot. When twisted it would make a cord about half an inch in diameter. When I saw it, two hours after it was removed from the neck, it did not seem to have been twisted.

He was found about 9 o'clock A.M., May 30th, 1875. Probable time of death from two to four hours before. I saw him at 10.30 A.M.

No *rigor mortis.* Face and eyelids livid, but not swollen. Eyes slightly injected, but not projecting. Pupils moderately dilated. Tongue livid and the tip between the teeth. Lower jaw not retracted. No bloody froth about nose or mouth. Mark of the noose around the neck. Greatest width a little to the right of Pomum Adami, being about half an inch. Depth at same point one-fourth of an inch, shading off both in width and depth to a mere impression just beneath the occipital protuberance. In front the depression was immediately over os hyoides and superior border of thyroid. Hyoid appeared to be fractured. The man was quite fleshy about the neck, and no incision was made to determine this point. The skin in the depression was horny and parchment-like, yellowish-brown in color at its deepest part, gradually becoming livid as it passed backward. The border of the depression, both above and below, was sharply defined by a deep purple line one-sixteenth of an inch wide; beyond this the lividity was much less marked upward to the face, and downward to the chest, the greater portion of which from clavicles to fourth intercostal spaces was only mottled. The hands, fingers, and nails were quite blue. The ears were purple-blue.

Six hours later *rigor mortis* complete. The posterior part of body from neck to popliteal spaces strongly marked with *post-mortem* stains, hypostatic congestion.

An abrasion was found upon the front of right thigh, just above the knee. No wounds elsewhere upon the body or scalp. No hemorrhage. No escape of fæces or urine, both of which had probably been passed immediately before the hanging. The scrotum was very blue, except a line including the raphe, three-eighths of an inch wide, which was of a natural color. This was so marked as to immediately attract attention on uncovering the parts.

Other circumstances pointed so plainly to the case being one of suicide, no internal examination was required by the coroner.

I testified that the external appearances found were those that usually followed death by hanging, but that the mark of the cord upon the neck was not incompatible with hanging after death.

ERGOT IN THE TREATMENT OF INSANITY.

By EDWARD C. MANN, M.D.,

MEDICAL SUPERINTENDENT STATE EMIGRANT INSANE ASYLUM, WARD'S ISLAND, N. Y.

Some years have elapsed since Dr. J. Crichton Browne, the Medical Superintendent of the West Riding Asylum for the Insane, wrote an article advocating the use of ergot in the treatment of mental diseases; and since that time a few members of the profession have availed themselves of its use. The majority of the profession in this country are, however, to-day ignorant of the great therapeutic value which this medicine possesses when used with discrimination in the treatment of mental diseases.

It was proved years ago by the researches of Brown-Séquard and others that ergot possessed the power of producing contraction in the vessels of the spinal cord, and accordingly it occurred to Dr. Browne that it might possess a similar control over the vessels of the brain, and might thus be made to modify or remove the active cerebral congestion which is an attendant upon so many phases of insanity. Upon thorough investigation he found that there were three varieties of insanity in which it was eminently useful, namely, recurrent mania, chronic mania with lucid intervals, and lastly, epileptic mania. Dr. Browne and other observers who have adopted the use of ergot in the treatment of insanity, have found that in the varieties above mentioned it was almost uniformly successful in reducing excitement, in shortening the attacks, in widening the intervals between them, sometimes in preventing their recurrence entirely, and in warding off the dangerous stage of exhaustion by which maniacal excitement is so often succeeded. The way in which ergot operates upon the contractile coats of the vessels has been proved to be by its influence upon the non-striated muscular fibres and cells contained in their coats, thereby exercising a controlling power over the calibre of the intracranial vessels. In the three varieties of insanity before referred to,—in recurrent mania, in chronic mania with lucid intervals, and in epileptic mania,—we find that the lesion consists essentially in cerebral hyperæmia. We find, although the symptoms differ in these three forms of mental disease in which ergot is useful, that there is present in each form increased arterial pulsation, flushing of the face, suffusion of the eyes, dryness of the mouth, and cephalalgia. The disappearance of these phenomena in the intervals of the paroxysms, proves that they are dependent upon functional and not organic changes in the brain, in which latter case we should not expect to find any marked efficacy from the use of ergot, and indeed we often meet with instances in which the controlling power of ergot is after a time lost, as organic degeneration gradually follows as a sequence upon repeated attacks of mania. In epileptic mania it will be found that a combination of bromide of sodium with ergot will materially aid the action of the latter in widening the intervals between the fits, and in modifying the attacks when they occur. This combination will also often arrest paroxysms in the incipient stage. The stage of excitement which often precedes and ushers in the attack, and which sometimes succeeds it, is markedly diminished by the combination of the bromide of sodium and ergot. The bromide of sodium will be found to be preferable to the bromide of potassium, as it is pleasanter to the taste and causes less constitutional disturbance than the latter when given in large doses. Dr. Browne remarks that "it is in epileptic mania that ergot has been found pre-eminently valuable in allaying and abolishing excitement, and in conducing to a healthier tone of mental action. In the outbursts of violent agitation, which precede or follow a fit or group of fits, which occasionally take their place, and which have been pronounced by all authorities to be of so dangerous a character, it exerts a prompt and energetic effect. We may presume that these outbursts are dependent upon a want of equilibrium in the intracranial circulation, primarily disturbed by the epileptic seizure or condition. The distension of the vessels, which succeeds their spasmodic contraction and produces coma, subsides so far as to allow the resumption of activity by the higher centres, but only in an irregular and distorted way. And we may presume, further, that the soothing and rectifying effects of ergot are due to its power of re-establishing that disturbed equilibrium."

A thorough trial of the ergot treatment has satisfied the writer of its efficacy in asylum practice, and the following clinical cases will serve to illustrate its beneficial action. The doses of ergot used in the following cases have been from ʒ ss. to ʒ i. of Squibbs' fluid extract, three times a day, and in cases in which ergotine has been employed, from 5 to 10 gr. have been given. No unpleasant effects have ever followed even prolonged administration of the ergot, and from our experience with it, it would seem that the danger of injurious effects from the continued use of ergot has been greatly overrated by the majority of the profession. Dr. Browne, who has used the ergot treatment for many years in many hundreds of cases, says: "Indeed, so little have injurious effects of any kind followed even the prolonged exhibition of what might be termed enormous doses of ergot, that doubts might have arisen as to whether it were possible to produce that train of symptoms described as ergotism, by means of the medicinal preparations of secale cornutum."

Case I.—Miss E. K——, with recurrent mania, admitted to the asylum Jan. 11th, 1873, aged 22 years; occupation servant, native of Ireland. Was very noisy and maniacal when admitted. Was very incoherent in speech and boisterous; had no realization of her condition or surroundings. She entertained the idea that people were trying to kill her and get her property. She destroyed her clothing, broke the windows, did much damage to the furniture, and imagined that she saw snakes and devils in her room at night. She required restraint very often, and continued in this excited state for over a year with no mental improvement. She commenced to take the fluid extract of ergot in ʒ i. doses three times a day, on the 15th of June, 1874, and had only taken a few doses before beneficial results were very apparent. The excitement subsided, and she became quiet and peaceable. The congestion of the head and face which was very marked, has nearly entirely disappeared. Her pulse was reduced from 145 to 90. The temperature in the axilla from $99\frac{5}{10}$° to 98°, and her tongue, which was thickly furred, presents a normal appearance. At the present time she assists in the washing, and is very polite and quite cheerful.

Miss M. K——, a native of Ireland, aged 28 years, was admitted to the asylum June 11th, 1874. Form of mental disease, chronic mania with lucid intervals. On admission was very violent and abusive, requiring restraint; would strike and bite the attendants if not restrained. Her face was deeply congested, eyes injected, tongue coated with a thick white fur, pulse 130, and temperature 99°. Having continued in this excitable state for some days, with no evidence of improvement, was ordered ʒ i. of the fluid extract of ergot three times a day. By the 24th of June she began to show decided signs of improvement, and in place of being filthy and abusive in language and conduct, was polite and neat in her habits. She also began to sleep at night, which she had not done before, although medicine had been given for that purpose.

Her pulse was lowered to 85. Her temperature decreased, the suffusion of the eyes disappeared, and at the present time, April 28th, she has had no relapse of maniacal excitement.

E. Z——, a native of Germany, aged 27, a mechanic, was admitted to the asylum June 12, 1874, suffering from an attack of acute mania, caused by overwork and mental anxiety. Had always been a healthy man, and no trace of insanity in the family history. Upon admission was very noisy and maniacal, and his great strength rendered restraint necessary, as he endeavored to injure every one about him. He was ordered a warm bath, which relieved him for about half an hour, when he again became maniacal and dangerous. Was given chloral and hyoscyamus, and passed a restless night. In the morning he presented very much the same appearance as on the preceding evening. Face and eyes suffused and congested, pulse 100, and temperature heightened; tongue thickly coated and mouth dry; was put on ʒ i. of the fluid extract of ergot three times a day, and chloral and hyoscyamus at night. In a few days the excitement began to subside, and, August 1st, was comparatively quiet. August 15th, pulse 80, temperature $97\frac{8}{10}$°, appearance of tongue normal. Has remained quiet up to the present time. Appetite good, sleeps well, and is cheerful, although anxious to get back to his family.

Miss S. H——, native of Ireland, aged 25 years, was admitted to the Asylum Sept. 2d, 1872, with epileptic mania. From the time of admission to June, 1874, had a great many epileptic seizures, which were preceded and followed by attacks of maniacal excitement which rendered her a dangerous patient. Had been under restraint many times. July 24, 1874, became very noisy and excited, as is her habit before her fits, threatening to kill the patients and attendants. The eyes were suffused, mouth dry, pulse 140, and tongue furred. Was put on ʒ i. doses of fluid extract of ergot three times a day. After taking the ergot for two days, she became quiet, and the epileptic seizure which followed was very mild as compared with preceding ones. The ergot was continued, and since that time she has had no return of the maniacal excitement. The fits have decreased in frequency and intensity, and are not followed, as formerly, by any mental excitement. Her physical condition has also been markedly improved since she has taken the ergot. The pulse is now 75 and the temperature in the axilla 98°; eats and sleeps well, and assists in the work.

M. C——, native of Ireland, aged 30, was admitted to the Asylum about two years ago with epileptic mania. He was a strong, muscular man, and had been subject to epileptic fits for some years. For a period of from a week to two or three days preceding the fits was entirely unmanageable and a very dangerous man to deal with. Required to be restrained. He was also accustomed to have a period of maniacal excitement following the epileptic seizures, which lasted for a variable period, during which time his pulse would range from 100 to 120, and the face would be deeply congested. Was put on ʒ i. doses of fluid extract ergot three times a day, and this dose continued for a period of two months, sometimes omitting the medicine for a week and then resuming it. The fits immediately decreased in frequency and intensity, and the maniacal excitement entirely disappeared. Pulse and temperature became normal. He expressed a desire to work, and a short time ago returned in comparatively good health to Ireland.

Several other cases have exhibited as marked improvement under the ergot treatment as the foregoing, but want of space forbids their insertion.

Before closing we would call attention to some investigations assisted by the use of the microscope as to the state of the blood and urine in the insane. A microscopical examination of blood from insane patients, as compared with an examination of blood from the same number of healthy individuals, revealed in the blood of the insane a condition of leucocythæmia, or a marked increase of the number of white corpuscles. This condition has also been remarked by other observers, and Dr. Charlton Bastain and Dr. Blandford have described a plugging or stopping up of the cerebral vessel by small embolic masses composed of collections of white corpuscles, in cases of acute mania and delirium. It has also been found that during the period of maniacal excitement, that there is a marked diminution of fibrine in the blood, and that during convalescence the amount of fibrine is increased to the normal standard. These results have been confirmed by the recent researches of Hittorf, Erlenmayer, Michea, and Dr. Marcet. Examination of the urine of the insane has shown that in acute mania there is an excessive elimination of the phosphates as a rule, while in dementia, general paralysis, and chronic mania, the amount of phosphates eliminated is generally below the average. There has been some difference of opinion in different observers as to the reaction of the urine in insanity, Erlenmayer claiming that it is generally alkaline in recent cases of mania, while Dr. Sutherland, who has paid great attention to the condition of the urine in insanity, found that in 125 cases of recent mania, the urine was acid 101 times and alkaline 13 times, and gave a neutral reaction once. In our investigations we have found the reaction to be acid in the majority of cases of those affected with acute and chronic mania and dementia.

The small amount of time at the disposal of a physician in charge of an Asylum, and the difficulty of making an extended course of investigation in the analysis of blood and urine, which is so desirable in the study of insanity, and also the difficulty of making microscopical researches, are causes which have combined heretofore to deter the superintendents of Asylums in this country from giving to the profession the results of their valuable experience, and it is therefore to be hoped that the time is not far distant when every Asylum shall possess the services of a skilled pathologist and chemist.

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HYPOSPADIAS—TWO CASES RELIEVED BY OPERATIONS.

By E. BRADLEY, M.D.,

NEW YORK.

The first case was that of a gentleman who came under my care with the following condition of the genitals: The penis was one and one-quarter inches in length, and solid, having no urethra, or any trace of one except at the place where the meatus ought to be, and at that point there was only a slight furrow. The testicles were enclosed in separate sacs, and the division of the sacs was in the median line, and was carried up to the perineum. The testicles were large and unusually well developed. The penis was drawn up between the testicles, and rested on the floor of the perineum, and when patient stood erect only a trace of the rudimentary penis could be seen, it being concealed by the separate sacs closing over it, and the parts had very much the appearance of the female vulva. At the root of the penis was an opening, leading into the bladder, which admitted a No. 12 English sound easily, and through which the patient evacuated the bladder while in a sitting position. The patient was very well developed physically, had frequent erections, seminal emissions, and his sexual desire was strong. I operated, by making three V-shaped incisions, along the under border of penis, cut the contracting bands which held the penis in its curved position, and strapping the organ firmly against the abdomen, allowed it to heal. After a few weeks, the organ was found to measure three inches, a similar operation was again performed, with a further gain of an additional inch. After waiting several months for the cicatrix to become softened and absorbed, I made a straight incision along the centre and under surface of the penis, and dissecting flaps upon either side, from the end of penis to the perineal opening, I introduced a silver tube, flattened on one side, and having that side down; brought the flaps over the tube, and united with very fine sutures. The tube was moved, after forty-eight hours, very gently, and the parts allowed to heal over it. After considerable trouble one and one-half inches of the flaps from the opening into bladder towards the end of penis united, and by a subsequent operation scarifying the edges of the opening into the bladder, and the edges of the adjacent ends of the flaps which had been made, and bringing them together, they were made to heal over a catheter kept in the canal for the passage of the urine. The patient could then pass water in the erect position, and seemed to be very proud of the seeming transformation of his sex. And although he did not pass water out of the end of the organ, yet he was satisfied, as the erectile powers were as good as ever. He soon after married, and at last accounts was living happily with his wife; although he has never had any children, his seminal fluid contains spermatozoids in abundance.

The second case was similar in every respect, as regards the appearance of the genitals. The patient was thirty-three years of age, a large, fine looking, well-developed man, who had dressed and passed as a female for twenty-five years, having been pronounced one by his family and their attending physician. He worked in a factory among females for ten years, and slept with one as companion most of the time. After arriving at the age of puberty, he had great difficulty in concealing his beard, and eight years ago he came to this city and changed his female apparel for that of a male. And although he has been in male attire ever since, yet there is something about his actions and manners which reminds one of a female.

I performed the same operation on him, and after eighteen months, and three operations, I succeeded in getting four and a half inches of penis for him, and am now waiting to allow the parts to heal thoroughly, when I propose to do the following operation: Pass a straight steel instrument (similar to Dr. Bumstead's smallest size instrument for the division of stricture, but pointed and sharp at the end) down through the penis, starting at the fissure where the meatus ought to be; carrying it down until it meets the opening into bladder, and then, by a judicious use of the knife in the groove on the upper edge of the instrument, enlarge the opening until it will admit a No. 8 catheter or tube. By allowing the tube to remain, and by moving it gradually, I expect to establish a canal, and if this can be done I shall close the opening in the perineum by scarifying its edges and uniting them.

I think this operation bids fair to give me better results than the plastic operation performed on the first patient. I am, however, fully open to suggestions on this point, and would be very thankful to receive them. The operations performed were attended with considerable hemorrhage, especially at night when the erections took place.

Progress of Medical Science.

Malum Perforans Pedis.—Professor Fischer, of Breslau, has lately given an interesting review of what is known about the disease to which Vesignié gave the name mal perforant du pied, and he also adds seven cases observed by himself. The multiplicity of writings on this subject has not, he thinks, tended to a clearer understanding of it. Leplat is found to have given the clearest characterization of the symptoms, which he groups in three stages.

The *first* begins with a callous thickening of the epidermis of the sole of the foot at a point where the bones are prominent, and the soft parts subjected to considerable pressure in walking and standing. This callosity is either white, or it may be stained by effusions of blood between its layers. The underlying skin, at first unaltered, subsequently becomes thickened and atrophic, with diminished sensibility. In the *second* stage pus develops under the callosity, and a round, funnel-shaped ulcer ultimately forms, which has a great tendency to penetrate deeply into the foot. The *third* stage is marked by an extension of the inflammation, if the foot is used, to the synovial cavities and joints. In the *fourth* stage, phlegmonous inflammations extend over the whole foot; there are acute pains, with caries of the bones and destruction of the joints by suppuration. Fischer adds these further characteristics: The process begins at the surface and makes its way uninterruptedly inward to the bones and joints. Its course is chronic and free from pain, certainly until an advanced stage. It obstinately resists all kinds of local treatment. It exhibits a great tendency to relapses, and to attack the most different parts of one or both feet successively. It is also noticeable that these relapses occur even if the patient remains in bed and wears nothing on the feet. Another prominent characteristic is found in the lesions of sensibility in the neighborhood of the ulcer, and in the whole limb, consisting of a mixture of anæsthesia and analgesia, the latter involving a larger area than the former. Fischer regards this last character as so essential that he would exclude from the category of mal perforant all cases in which the sensibility remained normal. Then there are associated nutritive lesions, involving the various tissues of the foot and limb, and amounting in some cases even to gangrene, and these our author regards as quite constant. The disease is observed most often in men, in persons belonging to the lower classes, and in those over forty years of age. With regard to the pathological anatomy, the blood-vessels and nerves have engaged special attention, but nothing positive seems to have been established as to the real condition of things. With regard to the pathogenesis of the disease, too, there have been various theories differing widely from one another, and none universally accepted as correct. Thus we find it considered as an ordinary ulcer in an extraordinary situation; an inflammation and suppuration of the callosities and bursæ of the foot; a decubital ulcer or form of gangrene from pressure; an ulcer originating in occlusion of the sweat glands; a result of a primary disease of the bones; a cancroid; as due to inveterate syphilis, in connection with the fact that iodide of potassium is often useful in the treatment; it has also been referred to uræmic and glycosæmic sources, and some have regarded it as identical with psoriasis plantaris. A large number of surgeons refer the disease to an affection of the vessels; some to atheroma, in regard to which our author agrees with Duplay, whom he quotes as saying that the lesion of the vessels, far from being a primary disease, is a wholly local secondary change. Fischer also rejects embolism as an explanation. In conclusion, he expresses his own conviction that the mal perforant is the deepest and most malignant form of neuro-paralytic ulceration. It may be regarded as a symptom of leprosy, though not a leprous ulcer. It is accompanied by lesions of the innervation and nutrition of the parts which are allied to those of leprosy, and it occurs quite constantly in connection with injury of the mixed nerves. Such injury, with the diminished sensibility which accompanies it, is doubtless an important factor in the causation of the callosity and subsequent ulceration, by making it possible for the individual to endure a degree of pressure, on an unprotected part, which he could not if the nerves were normally sensitive. Still even this will not suffice to explain all cases. The first and severest result of the deficient nervous influence appears to be the diseased condition of the blood-vessels, and to this latter Fischer ascribes the nutritive changes. He protests against classing every obstinate ulcer of the foot as mal perforant, and declares that when thoroughly sifted, those cases which can properly be so called will be found to be neuro-paralytic ulcers. As to treatment, he recommends electricity to restore the function of the nerves, which will be followed by cure of the ulcer. If the nerves cannot be restored to health, amputation is the only resource.—*Archiv für Klin. Chirurgie*, xviii., 2, 1875.

The Relative Antiseptic Properties of Salicylic and Carbolic Acids.—Salicylic acid as now prepared by the method of Kolbe consists of a white powder, slightly soluble in water, but easily in alcohol, the solution giving a characteristic violet reaction with chloride of iron. With the view of ascertaining the relative antiseptic properties of salicylic and carbolic acids, Julius Müller, an apothecary of Breslau, undertook a series of experiments. Adding solutions of carbolic and salicylic acids to a solution of grape sugar and yeast, in the proportion of 1 to 2,500, the salicylic solution was found to prevent the fermentation for twenty-four hours, while carbolic acid in a similar proportion produced no effect. He found that fresh urine, to which carbolic acid was added in the proportion of 1 to 500 and 1,000, remained entirely unaltered at the end of eight weeks, while urine treated with similar amounts of salicylic acid became turbid after five or six days, and soon developed mould fungi and became alkaline. One per cent. of salicylic acid, however, preserved the urine fresh and clear for eight weeks. Results similar to the last followed when these acids were added to solutions in which finely divided portions of liver were put. Thus it appears that a salicylic acid solution, when added to fresh yeast, retards its action upon grape sugar when much more diluted than carbolic acid, but that it offers much less resistance than the latter to the development of the mould spores contained in the air. The author suggests that this may be explained by the greater volatility of the carbolic acid. Pursuing his experiments with non-organized ferments our author found that salicylic acid, in the proportion of $\frac{1}{10}$ to $\frac{2}{10}$ per cent. of the solution, was efficient in preventing the decomposition of amygdalin by emulsin, in delaying and arresting the action of ptyalin upon starch, and the conversion of glycogen into sugar in a solution containing fresh liver, while it required a 10 per cent. solution of carbolic acid to effect the same results. In experiments upon the digestive action of pepsin the results attained were similar, but the difference between the two acids was not so great. That salicylic acid does not arrest digestion in the same way when taken into the stomach of the living animal, as was proved by trial both on man and rabbits, he attributes to the rapidity with which it is eliminated from the system. The author considers the efficiency of the salicylic acid as an antiseptic and antifermentative as due largely to its acid quality. He believes that it will not supersede carbolic acid, because the latter combines so readily with oil and with glycerine, which is of great practical advantage, and because of its antiseptic advantages due to its volatility. Salicylic acid, however, having no smell and not being irritating, will, he thinks, be largely employed in cases where carbolic acid is indicated, but cannot be used because of these defects. An aqueous solution may be obtained by dissolving one part of salicylic acid in twenty parts of hot glycerine and adding to this eighty parts of water.—*Berl. Klin. Woch.*, May 10, 1875.

Salicylic Acid in the Treatment of Catarrh of the Urinary Organs with Alkaline Fermentation of the Urine.—Taking the hint from Kolbe's statement that a small proportion of salicylic acid will arrest the alkaline fermentation of stagnant urine and destroy the bacteria found in its sediment, and remembering that this substance is largely eliminated as such in the urine, Dr. Fürbringer, of Heidelberg, gave it internally in some cases of cystitis, pyelitis, etc., and has made a partial report of the results. The first of the four cases that he reports was one of advanced phthisis and spinal paralysis, in which the urine became fetid and alkaline, and had a deposit consisting of crystalline salts, pus corpuscles, and bacteria. After about 77 grains of salicylic acid had been taken in divided doses the urine became acid and lost its bad smell, and only pus cells with very few bacteria were found in the sediment. The second was a case of chronic Bright's disease, complicated with catarrh of the urinary tract. The urine was highly alkaline when passed, its sediment essentially the same as in the last case, and it also contained albumen. There were also symptoms referable to an enlarged and sensitive prostate. He was given salicylic acid in the average dose of 15 grains a day, and this was continued for nine days, with gradual improvement in the characters of the urine and finally a disappearance of all bad features except those due to the chronic Bright's disease, viz., casts, albumen, and a few red blood-corpuscles. The third case was one of cystitis of many years' standing, requiring the daily use of a catheter, and in which the characters of the urine and its sediment were similar to the last, the bacteria being very numerous. Salicylic acid was given internally in daily doses of 15 to 30 grains for some twelve days without effecting an important change in the urine. On the supposition that a mass of mucus adhering to the walls of the bladder might be acting as a ferment and keeping up the alkalinity of the urine and the supply of bacteria to an extent which the amount of the acid present in the urine could not overcome, it was determined to wash out the bladder thoroughly with warm water and with a weak solution of salicylic acid. This was done for three days, the medicine being continued internally, and on the fourth day the urine was found to contain no bacteria, but only pus cells and epithelium, and to be acid. The fourth case was one of acute cystitis, in which the alkalinity, the bad smell, and the bacteria developed in the urine were removed by the internal use of the salicylic acid as above, while the pus remained unaffected. From these cases the author feels justified in concluding, 1st, that the internal administration of salicylic acid in quite small doses will do away with the irritation and results of the ammoniacal urine within the organism; but 2d, that it is not capable of checking the formation of pus cells on the mucous membranes of the urinary passages.—*Berl. Klin. Woch.*, May 10, 1875.

A Case of Marjolin's Ulcer.—A case of the above disease under the care of Mr. Wm. L. Wheeler, of the City of Dublin Hospital, has been reported with the following history: The patient was a man aged 46. When five years of age he was badly burned about the left knee and foot, and left hand. When about 33 years of age he observed a "sort of pimple" break out on the lower end of the ulna, which increased to about the size of a sixpence; for this he was treated for a few days, without any apparent change in the sore. Until three years ago it remained almost quiescent, when it commenced to spread around the wrist, until it entirely encircled the joint. The ulceration also spread so as to open the ulnar artery, causing considerable hemorrhage; this latter accident happening about three months before the patient's admission to hospital. Subsequently the ulnar and median nerves became involved, causing numbness of the entire hand. On admission to hospital he was suffering intense pain, and was in poor condition. Under general treatment he improved so much that in a couple of weeks he was in a fit condition to undergo amputation, which was performed by Mr. Wheeler, close to the shoulder-joint. After the operation on close examination, two inches of the ulna were found eaten away; the ulna artery destroyed for about three inches, the ulnar nerve eaten across, and the median nerve partially; the scaphoid, semilunar, cuneiform and pisiform bones were all absent.—*The Medical Press and Circular*, May 5, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

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MEDICAL ADVERTISING.

The subject of medical advertising still occupies professional attention, and as yet gives no promise of wearing itself threadbare by continued discussion. The remarks which we have made bearing upon it seem to challenge such criticism from certain quarters, that we almost flatter ourselves we have given some new interpretation to the letter and spirit of the Code. We have all along imagined that it was well understood by the profession that there were certain points connected with it concerning which, with fair-minded individuals, there could be no question. But that the case is otherwise is quite evident from the various anonymous communications which have lately appeared in one of the daily papers, criticising the course of The Record. Far from regretting the stand which we have taken, it is a matter of considerable congratulation to us that we have been chosen as the target for the anathemas of those who desire to find some excuse for wrong-doing. There is, in fact, only one interpretation to be placed upon these letters. There are a few medical men who are striving by underhanded means to create a public sentiment in their own favor, and win for themselves the reputation of martyrs to an opinion. They are not backward in wilfully misrepresenting the sentiments of their brethren, and in charging them with acts which savor of illiberality, injustice, and intolerance. We have the strange anomaly presented of men who appear to take a pride in being considered respectable physicians, and yet are ever ready to revile that respectability. There is a little proverb concerning the bird that fouls its own nest, the application of which some of these gentlemen may have forgotten.

The sympathy of the public can always be gained by showing a disinterested purpose to serve it. This is the aim of these advocates of advertising. They have an intense desire to benefit their race, but the profession stand in their way. What a pity for the world, and what a shame for the profession! As an instance of the manner in which misrepresentations are made, in order to prejudice the public, we quote from a recent letter in the *Tribune*, evidently written by one who has been advertising himself, and who desires to continue to do so:

"Your correspondent 'Adverto' is not the only physician who has been held up to the gaze of his medical brethren by the high-toned and public-spirited editor of the medical weekly to which he refers. In the eyes of this self-appointed censor any physician who does not hide himself in his closet is guilty of advertising. If he writes a letter to a newspaper on some topic of public interest, he is advertising; if he signs a statement of any kind, and it gets into the public press, he is advertising; if he delivers a lecture before some society and it is published and quoted from by a daily journal, he is advertising; if he (be) so unfortunate as to be alluded to in a complimentary manner for any benefit he may have conferred upon the world by his discoveries or teachings, he is advertising in a most insidious manner. Now, sir, is it not time that all this humbug should be stopped? for I assure you it is the offspring of the most consummate envy, jealousy, and littleness."

On its face, as a statement to the public, this looks rather bad for The Record, but more especially for the profession, in behalf of which it presumes to speak. The fact is that we have run the risk of being quite liberal on many points referred to by our anonymous friend. We have always believed in educating the public on medical matters. This is one of the duties which we have urged upon the profession, and which can be performed without violating the Code, or, in other words, advertising the individual. The main difficulty in the way of a consummation of this wish is, that the truly representative men in our profession are afraid to run the risk. Their natural modesty too often gets the better of their judgment. Perhaps, too, they are loth to establish a precedent which might be misinterpreted by their weaker brethren. Such men we could trust to write letters "on topics of public interest," "to sign statements," to deliver lectures, and to confer benefits upon the world by their "discoveries" and "teachings." That they are not yet ready to do it is a matter of regret.

There are plenty of subjects concerning which the public desire information, but this information can be given independent of any desire to bid for practice. In one case the medical man speaks for his profession, but in the other case he speaks for himself; in one case he is a leader of public opinion, but in the other, a pretentious quack. We care not in what guise or form a medical man may appear in the public prints, if his motive is to directly or indirectly gain practice thereby, or to elevate himself at the expense of his brethren, he is an advertiser, and as such we shall always condemn him, and always hold him up to the "gaze of his medical brethren." We are willing to be liberal on all other points connected with medical writing for the daily papers, but in this, even at the cost of being considered envious, jealous, or bigoted, we confess ourselves somewhat radical.

As an argument in favor of his position, the anonymous correspondent in the *Tribune* quotes a notice made of THE RECORD and of its editor, in the *Evening Post*. For the opinion of the writer of that notice we are in no manner responsible; he spoke of THE RECORD as a journal, and of its editor as a journalist; but how this can be construed into any medical advertising on our part we are at a loss to determine. The low-minded insinuation that we probably dictated the notice ourselves is unworthy of serious consideration.

MEETING OF THE PENNSYLVANIA STATE MEDICAL SOCIETY.

THE recent meeting of this Society at Pottsville was interesting, mainly from the absence of all the distracting elements which have characterized its predecessors. The papers presented were valuable contributions to the literature of modern medicine and surgery, and as such gave intellectual force to the whole proceeding; but the harmony which seemed to prevail in all the business of the meetings was quite as conspicuous a feature, and evinced the existence of a healthy moral tone in the profession of our sister State which is very commendable. We can scarcely recall, at this moment, a meeting of this State Society in which some element of temporary discord has not been thrust into the foreground, and thrown a damper on the unanimity of feeling among the delegates. We remember how, but a few years ago, the woman question was the all-absorbing theme of discussion on which the members frittered away valuable time, year after year, until by a bare majority the earnest efforts of the friends of the sex triumphed, and the target was permanently removed. Petty quarrels of members of local societies were annually disinterred from temporary receiving-vaults, in which they had been laid away, carefully embalmed, in order to have experimental efforts at resuscitation made upon them, previous to their permanent burial. The meeting this year was more like that of a happy family, whose members were capable only of cordial greeting and brotherly love. May this truce to all bickerings and jealousy be enduring! As an evidence of the improved temper of the Society, we may allude to the effect of the address of the President, Dr. Washington L. Atlee, which was markedly a defence of woman in her professional aspirations and endeavors, even while he satirized her external follies of dress and fashion. Had these laudatory remarks been uttered three or four years ago so openly and fearlessly, they would have excited a storm of heated argument, and have seriously disturbed the general harmony. Not a word of opposition was heard, and although the sentiment of the Society must have been much divided, it was deemed undesirable to rekindle the ashes of the past. The very fact that a President was selected last year who was in former years a most earnest advocate of the practice of medicine by women is an evidence, independent of his brilliant reputation as a surgeon and an ovariotomist, that the hatchet had been buried, and that a desire for harmony and peace prevailed.

There seemed to be an earnest effort on the part of this body to encourage all the counties to form medical societies, and send representatives to the parent organization. There are about seventy counties in that State, and yet we find scarcely more than thirty represented at this meeting. We believe there is much fraternity of professional ardor, intelligence, and courtesy now lying dormant in some of the less central counties that might be awakened by judicious efforts, for we believe that local societies produce the friction which will often remove the rust and roughness inseparably associated with isolated labor. Left to himself, the professional man is often prone to forget that he is only a part of the general machinery, which, with the united efforts of others in the same cause, may be moved to useful and practical results. Our Pennsylvania medical brethren seem to have taken high ground also upon the subject of education of children, of hygiene, etc., and we trust that their efforts to procure the establishment of a State Board of Health by the Legislature may prove successful. This is one of the legitimate methods in which medical assistance can be invoked to procure the passage of measures for the improvement of the general health of the community. In other cases such interference is frequently neither desirable nor expedient.

SCHOOL FOR NURSES.—The Commissioners of Public Charities and Correction purpose opening a School for Nurses, at Charity Hospital, on the first day of August next. It is their design to offer to worthy young women, between the ages of twenty and thirty-five, the opportunity to acquire proficiency in a pursuit which is at once honorable, useful, and remunerative, by educating them in the profession of nursing. Every effort will be made to elevate the occupation, by a course of careful instruction from competent teachers, and by considerate and generous treatment of the pupils. The course of training will occupy two years, and will embrace lectures upon nursing, food, ventilation, midwifery, and all subjects connected with nursing.

The lectures will be given by physicians connected with the hospital, and will include a course of twelve lectures upon each subject every six months, and frequent instruction at the bedside.

At the expiration of two years the nurses will be examined by a Committee of Physicians, and those who are competent and qualified will receive a diploma, signed by the Commissioners of Charities and Correction, and the Examining Committee.

Applications, stating name in full, age, and names of clergyman and family physician, should be addressed to

JOSHUA PHILLIPS, *Secretary*,
66 Third Avenue.
New York City.

Reports of Societies.

PENNSYLVANIA STATE MEDICAL SOCIETY.

Twenty-Sixth Annual Meeting.

[SPECIAL REPORT FOR THE MEDICAL RECORD.]

First Day, June 9.

This Society met at Pottsville, Penn., on the afternoon of Wednesday, June 9th, at 3 o'clock. One hundred and fifty-five delegates were present from thirty-one counties of the State. The officers of the Society were the following: *President*—Dr. Washington L. Atlee, of Philadelphia. *Vice-Presidents*—Drs. G. D. Bruce, of Alleghany; Rowen Clark, of Blair; P. B. Breinig, of Northampton; and A. Craig, of Lancaster Co. *Permanent Secretary*—Dr. W. B. Atkinson, of Philadelphia. *Assistant Secretary*—Dr. R. S. Cheisman, of Schuylkill. *Corresponding Secretary*—Dr. Richard J. Dunglison, of Philadelphia. *Treasurer*—Dr. Benjamin Lee, of Philadelphia.

After prayer by Dr. Traill Green, of Lafayette College, Easton.

Dr. A. H. Alberstadt, of Pottsville, Chairman of the Committee of Arrangements, welcomed the delegates. Among other matters, he alluded to the fact that, in this land of reputed freedom, but really of quasi despotism, the repeated appeals to legislation have in no instance accomplished the passage of a law, the verbiage of which was not susceptible of an infamous interpretation; and its attempt at execution so besieged by the cry of persecution as to virtually secure an immunity to that class of regular practitioners, whom the law, on the ground of public safety, was intended to apprehend. Physicians, as such, cannot take part in advocating legal measures, without subjecting themselves to the charge of indelicacy by urging restrictions upon men, professing the same avocation, where competition is involved, and thus simply nursing their own pecuniary interests.

He considered that through the county societies, this State medical organization might take such action as would improve the tone and character of the medical schools of the Commonwealth. He then alluded to the local surroundings and the peculiar features of the region in which the State Society was then being held. It has been said, by a wise observer, that the great nations of the near future are those who have the most abundant supply of iron, and of fuel wherewith to reduce it, and it is not a little startling to find that our compeers in the short catalogue of the greatest nations are Russia and China. Assuming these declarations as true, and the importance of coal as one of the great factors of power, Pennsylvania has reason to congratulate herself on the possession of a coal which is the nearest to perfection of any that is known, or likely to be known, being very nearly pure carbon, and spread over the very limited area of four hundred and seventy square miles, less than an average county containing the whole of it. Of this area about one-half lies in our immediate vicinity, but owing to the greater thickness of the beds of coal in our southern coal field, this one-half of the area contains six-tenths of the workable coal. Through this territory the coal lies distributed in sheets, varying in thickness from three feet, at which some red ash veins are profitably worked, up to that grand deposit in the Shenandoah Valley, twelve miles north of us, where the Mammoth vein reaches the thickness of one hundred feet. These sheets, by changes in the form of the earth's crust since their deposition, have been more or less wrinkled, and are now found standing at all angles of inclination, in some places perfectly flat, and in others, as in the sharp mountains (which form the southern boundary of our town and of the coal region), tilted past the perpendicular, and leaning over into the valley, at depths varying from nothing, where they come to the surface, to the unknown depths just under our feet, where to reach them we should have to descend four thousand feet, nearly three-quarters of a mile below the level of the sea. I will not weary you with enormous figures which represent quantities of which the imagination can take no hold, and will only say, for the comfort of those who know the value of anthracite, and hope it may last their time, that one of our competent observers estimates that at the present rate of consumption the supply should last 2,600 years.

REPORTS FROM COUNTY SOCIETIES.

The next business in order, after calling the roll, was the presentation of reports from County Societies, which were referred to the Committee on Publication. The Corresponding Secretary then reported no correspondence. Delegates for this Society to other State Societies were called upon for their reports, but as usual scarcely any one responded, Dr. Eshlemar alone reporting his recent visit to the New Jersey State Society meeting at Atlantic City. He expressed himself as highly gratified at the vigor and zeal of this, the oldest organization in the United States.

The addresses on medicine and surgery were then, on motion, made the first order of business for the next morning; and the various delegations were notified to meet at the close of the afternoon session to select their representatives on the Nominating Committee.

A FEW SUGGESTIONS ON THE USE OF ETHER.

The first practical paper of the meeting was then read by Dr. Atkinson, in the absence of its writer, Dr. O. H. Allis, of Philadelphia, and was entitled "A few Suggestions on the Use of Ether." After alluding to ether and chloroform as the only two anæsthetics available to the practitioner, and to the greater safety of the former, its defects being its proneness to irritate the air-passages, its comparative feebleness as an anæsthetic, and its long and vexatious stage of excitement, he inquired whether such defects were not really defects of its mode of administration rather than of the ether itself.

That ether often irritates the larynx is true, says Dr. A., but only in the early stages of the anæsthetic procedure; and that, too, when it is used in too strong and concentrated a form. If a faint odor of ether is given at first, and this gradually increased, it will be found the *exception*, and *the rare exception*, that it is in the slightest degree irritating.

It requires a concentrated vapor of ether to accomplish any prompt results, and those who use it most have learned that it should be used with great profusion, and that the respired air should be thoroughly impregnated with the ether. Such a course has been found to be prompt and to be unattended with danger. I shall offer no criticism upon it, but simply state that I think the effect can be gained quite as promptly and without the *waste of ether*, or the offence to the patient; what ether requires is an opportunity to evaporate, and under favorable circumstances, when there there is a thin stratum of it, its disappearance is almost instantaneous. Any apparatus or vehicle for the administration of ether, that holds it in any quantity and retains it in the fluid state, is not well adapted for its use, while any contrivance that will favor the rapid deliverance of the vapor of ether must, *cæteris paribus*, be more effective.

To reach this point, I have contrived a wire framework for keeping many folds of a bandage at a slight distance from each other, and yet having the whole in a compact form that will readily adjust itself to the face. The sides are enclosed, but the ends are left open;—the one for the patient's face, the other for the entrance of air and the ready supply of ether. It might at first appear unscientific, and to favor a waste of ether, but it is in every way an advantage; not only as it permits the ether to be added in *small and constant quantities*, but as the vapor of ether *falls*, by its density, there can be no need of closing it at the top. The folds of bandage, being separate from each other, cannot hold the ether, and must almost instantly liberate it, and the extent of free exposed surface of bandage, in a space less than four inches square, is over *one thousand square inches*. When one thinks that the air has ready access to both sides of so great a surface, and that upon this surface the ether falls, it must seem rational that such a mode of administration must be effective; and when, too, it is seen that the supply of ether may be constant, *one need never add more than a half drachm at a time*, if he will permit but a few seconds to elapse between the successive supplies. I have found it very effective. I usually produce complete anæsthesia in females in seven minutes, and with about two ounces of ether. Persons seldom object to taking it, and the stage of excitement is no more *excessive, prolonged, or frequent* than with chloroform.

I adhere strictly to the following plan. The patient, being freed from all restraint as to clothing, I place the apparatus over the face and add *a few drops of ether*, hardly enough to give a strong odor of ether. In a few seconds I add a few more drops, taking care not to give it in too concentrated a form at first. In a few minutes I see the patient taking deep respirations, and then I add it more constantly, *not too much, to be offensive or objectionable to my patient, and not too little to be efficacious*. It requires some skill to give ether well, but its safety ought to commend it, and skill will overcome every defect of it.

Dr. W. L. Atlee stated that formerly he had not been in favor of the use of ether, except when mixed with chloroform, two of the former to one of the latter. The chloroform prevents excitement and the ether counteracts the depressing effects of the chloroform. In his practice he forbids a patient taking food for at least three hours before administering an anæsthetic. The patient is placed in a recumbent position and the anæsthetic administered slowly, so that the respiratory organs grow accustomed to it. Ether alone is never as happy in its effects as when mixed with chloroform. Dr. Allis' instrument was recommended.

Dr. R. J. Levis, of Philadelphia, said he didn't think well of any fixed instrument for the administering of ether, and objected to Dr. Allis' instrument on account of its liability to be clogged with mucus, etc., and to injure the face by a rough contact with its hard edges during the stage of excitement.

Dr. Peter D. Keyser, of Philadelphia, agreed with Dr. Levis. He had given the instrument a faithful trial and discarded it for the old-fashioned towel.

Dr. Atlee had never seen any of these effects.

The paper of Dr. Allis was referred to the Committee on Publication, by a vote of 40 to 28.

EXSECTION OF ELBOW.

Dr. John J. Carpenter, of Pottsville, then introduced and explained the case of his brother, whose elbow had been resected by him in consequence of a very extensive gunshot wound; the result being very satisfactory, with good motion. Amputation had fortunately been contraindicated by the enfeebled condition of the patient at the time of the operation, which took place within an hour after the accident. Dr. C. was, on motion, requested to write out the details of the case.

Dr. Peter D. Keyser, of Philadelphia, read a paper on the results of operation in cataract, explaining the signs, etc., employed by oculists, which was referred to the Committee of Publication.

Drs. Stetler, Horton, and **Gallaher** were appointed a Committee on Unfinished Business.

“OLD PHYSIC AND YOUNG PHYSIC.”

In the evening, Union Hall was filled with delegates and others, many of them ladies, to hear the address of the President, Dr. Atlee, the subject selected by him being “Old Physic and Young Physic: Some of the Changes of the past Half Century contrasted and compared, and their Advantages estimated.” Allusion was first made to the difference of views and habits in regard to venesection. In the practice of Old Physic the lancet was once considered indispensable. It was then the rule to place the patient upright, open a large hole in the vein and allow the blood to flow freely until syncope supervened. Astonishing results sometimes followed, at times symptoms entirely disappearing. At that day every physician carried a spring lancet and used it daily. Now the rule is the reverse. Until the third or fourth decade public sentiment was in full sympathy with the practice of medicine, for people often came to medical offices with their red bandages ready to be bled, sometimes even while in perfect health. In the old practice the blessed, life-giving and refreshing influence of water was denied to patients in fevers. Water and mercurial agents were supposed to be fatally antagonistic.

In the old practice inflammation, rheumatism, etc., were met with the lancet; but by Young Physic they are boldly grappled with by the aid of brandy, old bourbon, etc., and the lancet is discarded. It is questionable whether with these allies Young Physic has been so successful in the treatment of acute diseases as Old Physic with the lancet. He preferred the lancet to the brandy bottle. A happy mean between the two practices was best. The entire giving up of blood-letting was a sacrifice of skill and duty to ignoble fashion.

The progress of Young Physic, and their advantage in the discovery of remedies, especially in female diseases, were next reached. There were many in the audience who could truthfully acknowledge that when they began practice they knew absolutely nothing about certain diseases of women. In the old time scores of female patients went down to the grave unrelieved. The bad effects of the change wrought by absurd fashion in the habits and dress of women were taken up. In proportion as women have departed from simplicity, in that same proportion have their infirmities increased. The confined waist and weighty dress of women were mercilessly ridiculed. Fashionable women were compared to a pea-fowl, strutting the streets and taking a scavenger-like promenade, gathering filth and exhausting strength. The pernicious effect of the fashionable shoe was explained. Nature intended the heel and sole to be on a level, but fashion raises the heel two inches above this level. Woman is thus walking down hill, and as far as health is concerned may be said to be going down hill all the time. The fashionable woman is a burlesque and caricature on nature. If woman's clothing were submitted to a convention of medical men, or better, of medical women, good results would follow.

Growing out of the ill-health of women is the practice, not sufficiently discouraged by medical men, of using tonics, stimulants, nervines, and opiates, which often ends in ruined lives. The use of stimulants is always hazardous. Permanent strength is the result of molecular nutrition only. Exercise in the open air, cheerful company, and proper dress can alone give back the healthful woman of the past. A terrible responsibility rests on mothers. A London physician asserts that the babies of London are intoxicated from the time of birth until weaned. How far the remark applies to the infants of America the speaker left for others to determine.

The decrease in female death-rate resulting from the discovery of ovariotomy by Dr. McDowell, of Kentucky, was alluded to in eloquent terms of praise; as was also the good effect of the operation of Dr. J. Marion Sims, then of Alabama, for vesico-vaginal fistula.

America was congratulated that one of her sons, a Boston dentist, had discovered the power of ether. The discovery of anæsthetics was pronounced the greatest gift any age or country has yet bestowed on suffering humanity. By this means the mitigation of suffering has been inconceivable. He had himself employed chloroform since 1848 without any serious result.

The advantages of Young Physic in the medical uses of the photograph, telegraph, railroad, medical books, museums, etc., were alluded to, as well as the application of instruments to diagnosis, therapeutics, pathology, physiology, etc. He referred to the great diagnostic mark in ovarian tumors discovered by the use of the microscope by Dr. T. M. Drysdale, one of the members of this Society. The clinical thermometer, the speculums of all kinds and uses, the ophthalmoscope, etc.; electricity and its apparatus, gum-elastic and Esmarch's method, etc., were alluded to as part of the later gifts to Young Physic.

He then spoke in terms of praise of the Board of Charities, the hospitals for the relief of the sick and suffering and the insane, and called attention to an institution of recent date and American origin—the Woman's Medical College. He was glad the Society had assumed a proper position in that matter. Woman's fitness for the profession was most emphatically asserted.

The habit of Young Physic of branching out early in practice into a specialty was reprobated. The title of aurist, oculist, etc., implies a more limited knowledge than that of doctor of medicine, and shouldn't be tolerated in the profession.

He concluded by strenuously urging upon the Society the importance of medical organization, the advantage of compliance with the rules of the Code of Ethics, the necessity of laws for the health of the community, etc.

After the conclusion of the address a vote of thanks was tendered Dr. Atlee, and the address was referred to the Committee on Publication. After which the Convention adjourned until the next day.

Second Day, June 10.

THE ADDRESS ON MEDICINE.

The Society reassembled on Thursday morning, and after the announcement of the names of the Committee on Nominations, listened to the Address on Medicine by Dr. William Pepper, of Philadelphia. After referring to the difficulty of selecting a theme for such an address, from the fact that any report of the progress of medicine was almost rendered unnecessary at this time, so many abstracts, etc., being regularly published in the periodicals of the day, he alluded to the fact that this was the first address of this kind that had been delivered before the State Society for a number of years. He thought it better, therefore, to touch briefly upon a few leading questions of the past decade, which are distinguished for their novelty or originality, rather than to attempt the very slight epitome of all that has been added of importance to medical science during the past five or ten years, or to select any one topic for extensive treatment. Special mention was made of recent important additions to nosology, such as the fact that it was reserved for a Swiss observer, Birmer, of Zurich, in 1872, to detect the very marked peculiarities which characterize certain cases of apparently causeless anæmia, and to describe them under the name of "progressive pernicious anæmia." Since then cases in confirmation have been published by Gressow and others. So large a proportion of these cases have been observed in Switzerland, in addition to the fact that as yet no record of similar cases in France, England, or America have appeared, that it has been supposed that the disease is specially developed under peculiar geographical influences. The peculiar feature of the disease is an intense anæmia, without special cause, so far as yet known, which steadily progresses to a fatal result, often accompanied during the last stages by œdema, hemorrhages, tending to syncope, and characterized anatomically by an extreme diminution in the proportion of the red blood-globules, with no increase in the white cells, and by advanced fatty degeneration of the heart, kidneys, etc., but without any enlargement of the spleen or sympathetic glands. Its pathology, Dr. P. states, cannot be regarded as established, but his own examinations made it probable that the one essential feature is an alteration of the marrow in the bones, similar to that which has now been repeatedly observed in some cases of leucæmia.

It is, however, in connection with the diseases of the nervous system that many of the most brilliant advances in knowledge have been made. One of the most recent additions to the list is Menierre's disease, vertigo labyrinthinæ. The patient feels a vertigo, and as though the building were falling in, and pitches to the ground, without loss of consciousness. This lasts several minutes, ending with severe vomiting and a copious cold sweat about the forehead, and then he recovers. Ringing in the ear was a constant phenomenon. It is readily seen to be distinct from epilepsy, though no doubt this, even, often occurs. It is the result of otitis, etc., with a lesion of the semicircular canals. Iodide of potassium seemed to give marked relief.

Dr. Pepper next alluded to "pseudo hypertrophic muscular paralysis," sometimes also called "progressive muscular sclerosis," as another addition to the nosology of the day, and after detailing its symptoms, etc., proceeded to discuss the vast field of clinical labor, in which we are making great progress, but in which there is yet so much to be done in this country. No time could be more favorable than this, he thought, for the employment of trained powers of observation, and for the exercise of careful generalization and instruction. Several important additions to our clinical knowledge have been made, not by hospital physicians, freed by their position from the harassing cares of a private practice, and enabled to devote themselves solely to scientific investigation, but by the practical study and acute observation of the active, busy practitioners in the field of their own private experience. Nor is it a gratifying reflection, that while in the improvement of the mechanical arts our countrymen have shown themselves so apt, so full of inventive genius, we can lay claim to so small a share of the progress effected in medical science during the past quarter of a century. It is humiliating to us as physicians to reflect that next year, when the nations of the earth shall be gathered together in the chief city of our Commonwealth, to witness the proud exhibit of our country's progress in all the arts of peace during the first century of her independent existence, and when we ourselves are to welcome as guests the honored and illustrious representatives of medical science from abroad, to be able to show but little progress or improvement in the great and important field of medical education. But I am assured that if from such bodies as this there shall go forth the demand for reform and advance in our system of education, ere long the need would be fully met, and I may add that the Centennial year will not have passed away before Pennsylvania will have placed herself in the foremost rank in this, as in so many other of the great fields of intellectual progress.

The improved instruments of the day for diagnosis were then explained and exhibited, such as the ophthalmoscope, the thermometer, etc., the various distinctive features of the latter, as manufactured at home and abroad, being demonstrated. Allusion was made to the advantages of studying the action of remedies, especially those of recent introduction, by the combination of experiment with clinical investigation. Digitalis was mentioned as one of those remedies which, on account of its action being more clearly determined by such mode of observation, is now much more intelligently prescribed in affections of the heart, and in other conditions dependent on feeble muscular activity of that organ, and a relaxed state of the terminal vessels. Nitrite of amyl, from its power of instantaneously dilating the capillary vessels, had been advantageously employed in convulsions dependent on spasm of the minute vessels of the brain, in angina pectoris, in epileptic convulsions, etc. Under the head of hypodermic injections of remedies, allusion was made to ergot and its employment in uterine fibroids, aneurism, hæmoptysis, tumors of the spleen, congestive neuralgia, etc. The hydrostatic method of injecting water into the bowels in cases of intestinal obstruction, intussusception, etc., was explained, and cases cited. In some instances, however, abdominal section was required to overcome the difficulty. The methods of paracentesis, as employed in pleuritic effusions and aspiration, were also described, the apparatus being exhibited. In cases of rapid effusion in acute pleurisy, cautious puncture was indicated where the effusion seemed to interfere seriously with the action of the lungs, or to threaten a rapidly fatal result. Sometimes it may be performed to prevent the transition of the case into one of empyema. Various conditions were detailed, in which the operation would be indicated and justifiable, and others, such as the simple, uncomplicated form of acute pleurisy, in which it would be contra-indicated.

He then detailed the results of recent injections into pulmonary cavities, as practised by himself. These were performed with very delicate needles, dilute solutions of iodine or carbolic acid being injected into superficial cavities or into consolidated portions of the lung-tissue. The following were the results of this mode of treatment, which were not complicated with hemorrhage, pleurisy, etc.: In tubercle and acute caseous infiltration of the pulmonary tissue, no result; subacute, local consolidation probably favors resolution; in chronic, superficial cavity, without tendency to destruction, may be favorable to cicatrization, or diminish the discharge. The injection is to be repeated about once a week, in the proportion of one part of Luzal's solution to ten parts of water, ten to forty-five minims being injected.

The revival of blood-letting and transfusion was then referred to. The condition necessary for the latter operation, its advantages, method, etc., were discussed, and the various forms of apparatus displayed.

The thanks of the Society were voted to Dr. Pepper, as they were subsequently to the authors of other papers presented, all of which were referred to the Committee on Publication.

THE ADDRESS IN SURGERY.

Dr. Richard J. Levis, of Philadelphia, then read the address in surgery, selecting fractures of the lower end of the radius as his theme. After alluding to the prominent symptoms, and the treatment, which was generally less satisfactory than that for fracture of other long bones, cabinet specimens almost always exhibiting marked deformity even after rational treatment. These fractures are generally situated at a quarter to three-quarters of an inch above the articulation of the carpus, measuring from the posterior articular end of the radius. Colles, of Dublin, erroneously located them about three quarters of an inch higher than this, but at this point they present very different features. Barton's observations on fractures of this portion of the bone have scarcely been verified, and the form of fracture, named after that surgeon, must be very rare. It is probable that he mistook for it the ordinary form of transverse fracture which takes place very near the joint. The structure of the bone and its mode of peculiar curvature were described as explanatory of the occurrence of fractures at the lower extremity of the radius, fracture taking place in the middle of the arch formed by the bone. Dr. Levis advised the employment of a Bond splint, where there is not much deformity, so that the parts may be readily maintained in apposition; but when marked deformity exists, extension will be required in the direction of the long axis, a special form of new and ingenious apparatus for this purpose being exhibited by him.

ADDRESS ON HYGIENE.

Dr. Benjamin Lee, of Philadelphia, then presented the annual address on hygiene. After alluding to the goddess Hygeia, and her worship as the divinity whose special care it was to bestow and maintain physical health, he referred to the scope of her worship at the present day as comprehending both the preservation of health and the prevention of disease. Included in this last are the various zymotic diseases, which are credited with producing in thirteen of the large towns of Great Britain nearly one-fifth of the whole number of deaths. During five years past, in Ireland alone, five of these diseases have destroyed nearly 60,000 lives. The number of deaths in Philadelphia alone from zymotic diseases during 1873 was 1,550, or 11.25 per cent. of the whole mortality.

The good effects of sanitary legislation in saving human life were illustrated by statistics to show that in London, two hundred years ago, with a population of about 500,000, forty-two out of every thousand died every year, while with a present population of nearly 4,000,000, only twenty-one die out of every thousand of her inhabitants. A similar improvement is noticeable in Paris, even within the past thirty years. It would be necessary, in order to secure appropriate legislation in this country, to show that a human life has an actual cash value. The last annual report of the Massachusetts State Board of Health, for instance, exhibiting a loss to the State by the sickness of working people alone in that State, at the lowest calculation, of $15,267,322.00. If one-fifth of this sickness should be preventable, the loss for this class alone would be $3,000,000.

Dr. Lee then called attention to the action of the American Public Health Association, at Philadelphia, their protest against the establishment of an *abattoir* in a central portion of that city, and the failure of the well-directed efforts of the medical profession and citizens of Philadelphia thus far to prevent the proposed exit. Explanation was then made of a process for the free admission of external air, and its escape when rendered unfit for use, recently introduced into the new buildings of the University at Pennsylvania. After a reference to the merits of salicylic acid as a disinfectant, etc., milk was considerd as an agent of absorption and conveyance of the *materies morbi* of disease, and its various impurities and adulterations discussed. Should a State Board of Health be created, one of its first duties should be to investigate the condition of dairies and the mode of transportation of that fluid. Dr. Lee then considered the question of the purity of the water supply. Typhoid fever was stated to be more fatal in the country than in the city, from the fact of the greater impurity of much of the water that is drunk in the country, the water being frequently obtained from the immediate vicinity of cess-pools, house-drains, etc. Recent instances were cited in which the disease was clearly traceable to such causes.

He concluded by offering the following resolutions, which were adopted:

Resolved, That the Committee on Hygiene be, and is hereby authorized to draw on the Secretary for copies of the *Transactions* for the year during which he holds his appointment, and to distribute to same to State Boards of Health, Boards of Health of large cities, the American Public Health Association, and other important sanitary bodies in this country and in Europe, with the request that they will furnish this Society their own *Transactions* and exchange.

On motion of Dr. Atkinson, the following was adopted:

Whereas, At the session of the American Medical Association, at Louisville, the following resolution was adopted:

Resolved, That each year, until otherwise ordered, the President elect and the permanent Secretary be directed to appeal in the name of the Association to the authorities of each State, where no State Board of Health exists, urging them to establish such Boards. And

Whereas, State Boards of Health now exist in Massachusetts, California, Georgia, Rhode Island, and Michigan, and have fully shown their importance and value; therefore, be it

Resolved, That the State Medical Society do urge upon our State Legislature the importance and necessity of appointing such a board for this State.

Resolved, That a committee of three be appointed to memorialize our State Legislature, and to take whatever steps may be necessary in the matter.

The resolutions were adopted, and Drs. Atkinson and Lee, of Philadelphia, and H. L. Orth, of Dauphin County, were appointed the committee.

Dr. R. L. Sibbet, of Carlisle, then read the report of the Committee on Medical Legislation, showing that the law passed by the last Legislature, in response to petitions from all parts of the State, was not all that they desired, but the best they could get under the circumstances; its deficiencies might be rendered hereafter by a supplemental law.

THE LATE DR. D. F. CONDIE.

A resolution was then passed in regard to the recent death of Dr. D. F. Condie, and appointing Dr. Andrew Nebinger to prepare resolutions, which were adopted at the afternoon session; and in regard to the distribution of copies of the *Transactions* in the Secretary's hands.

MEDICAL LEGISLATION.

Dr. P. J. Roebuck, of Lancaster, then offered the following resolutions:

Whereas, The Legislature of Pennsylvania has in its wisdom enacted a general law to protect the people against incompetent practitioners of Medicine, Surgery, and Obstetrics; and

Whereas, Communities do not generally comprehend the extent of injury to life and inflicted upon them by incompetent practitioners; and,

Whereas, Laws are of no avail unless enforced, therefore,

Resolved, That the members of State medical and various local societies, to protect the life and health of the people against empiricism, should make a determinate effort to enforce the law passed last winter, entitled, "An Act to regulate the Practice of Medicine, Surgery, and Obstetrics in the Commonwealth of Pennsylvania."

On motion of Dr. John L. Atlee, the subject was referred to the county societies, who should appoint committees to insure the enforcement of this law. The Society then adjourned until afternoon.

After reassembling at 2.30 o'clock, a note was read from Professor S. D. Gross, regretting his inability to be present.

ON MENTAL DISEASES.

Dr. John Curwen, of Harrisburg, then read an address on Mental Disorders which was full of practical suggestions, and among other items of interest severely criticised the present methods of school education, in which quantity rather than quality seemed to be the desideratum in the schools. But little attention seemed to be paid to the capacity of the pupil, and the foundation was thus laid for mental disorders. Cases were also cited in which the tendency to crime seemed to be inherited from some vicious propensity of the mother.

The paper excited much discussion, and on motion of Dr. John L. Atlee, Dr. Curwen was requested to furnish that portion of his address relating to the subject of education to Mr. Wickersham, State Superintendent of Schools, for publication in the *School Journal*, and to the Board of Education of Philadelphia.

OFFICERS FOR THE ENSUING YEAR.

The Committee on Nominations reported the following officers:

President, Crawford Irwin, of Blair Co. *Vice-President*, Andrew Nebinger, Philadelphia; A. N. Naeberstadt, Schuylkill; R. L. Sibbet, Cumberland, and J. F. Ross, Clarion. *Corresponding Secretary*, Horace Y. Evans, Philadelphia. *Permanent Secretary*, Wm. B. Atkinson, Philadelphia. *Recording Secretary*, James Tyson, Philadelphia. *Treasurer*, Benjamin Lee, Philadelphia. *Committee of Publication*, Drs. Atkinson, Evans, Lee, Drysdale, Tyson, Fricke, and McIntire. Delegates were also appointed to other State and National Societies.

The President then announced the following appointments: Address in Surgery, Dr. D. Hayes Agnew, of Philadelphia; Address in Obstetrics, Dr. R. Davis, Wilkesbarre; Address in Medicine, Dr. J. Aitken Meigs, Philadelphia; Address in Hygiene, Dr. B. Lee, Philadelphia; Address on Mental Disorders, Dr. John Curwen, Harrisburg.

Dr. C. F. Deshler, Delegate from the New Jersey State Medical Society, was then introduced and made a few felicitous remarks in regard to the nature of the information which he should take back with him to New Jersey.

CLOSURE OF EUSTACHIAN TUBE.

After the transaction of various items of general interest, Dr. L. Turnbull, of Philadelphia, read a paper on "Closure of the Eustachian Tube from thickening of the Mucous Membrane." When this thickening becomes excessive, he employs the Eustachian forceps devised by him for the direct application of astringent and alterative remedies. A new method was suggested for the examination of the opening of the tube in the pharynx with the finger.

Among other items of interest, the report of the Commission on the condition of insane criminals to the last Legislature, with plans for the construction of an hospital, was presented by Dr. Curwen, and referred to the Committee on Publication. A Committee was appointed, on motion of the same gentleman, to memorialize the Legislature for the construction of a new general hospital for the insane in the Eastern Counties of the State.

The subject of typhoid fever was then discussed with much earnestness, in consequence of the reopening of the subject as introduced in Dr. Lee's paper on hygiene.

Dr. Evans being ineligible as Corresponding Secretary, on account of his absence, Dr. Thomas M. Drysdale was appointed to that position.

Dr. Allis, of Philadelphia, then reintroduced the apparatus devised by him for the administration of ether, and practically illustrated its efficiency in his hands upon a subject introduced for that purpose. A committee of three was appointed to report at the next annual meeting on the most desirable methods of administering anaesthetics.

On motion of Dr. Stetter, of Philadelphia, resolutions were adopted encouraging the formation of County Medical Societies throughout the entire State in time to participate in the meeting of the Society to be held during the centennial year.

After the usual resolutions of thanks, etc., and the introduction of the President elect, the Society adjourned, to meet in Philadelphia on the last Wednesday in May, 1876.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, May 28th, 1875.

Dr. Baylis, Vice-President, in the Chair.

REPORT ON DERMATOLOGY.

In compliance with an established regulation of this Society, that the last meeting of each month shall be devoted to a report upon some medical subject, Dr. George Henry Fox presented a paper in which, in a general way, he considered the present condition of Dermatology. The pathology of only a few subjects was referred to; the treatment received only a brief consideration, and the bulk of the report was made up of the floating views held regarding the essential nature of these lesions. The advanced position which the science of dermatology at present occupies was attributed to the microscope, and when it comes into general use, and not until then, will the proper degree of success be attained in the treatment of this class of diseases.

With reference to the pathology of *lupus*, the views of Friedlander alone were presented, who holds that it is essentially a localized tuberculosis.

The most important question in connection with dermatology was considered to be whether these skin lesions are essentially of constitutional origin, or are simply local in character. The views held by French, German, and English authors of acknowledged authority were referred to at some length.

One external application was alluded to which has lately been recommended, namely, gurjun-oil. This oil is an oleo-resinous substance, obtained from India, and was reintroduced to the profession in 1873, by Dugal, in the treatment of leprosy in that country. He used it in combination with lime-water, equal parts, and it has latterly been used by Dr. Erasmus Wilson in the treatment of eczema, lupus, and cancer. He has ascribed to it the valuable property of relieving pain in these affections.

In the discussion which followed the reading of the paper—

Dr. R. W. Taylor advocated the doctrine that local causes are largely prolific in the production of skin lesions. Internal causes may be at the base of some cases, but in a vast majority, perhaps in two-thirds of the entire number, the lesion is of external origin. He proposed to read a paper at some future date, in which he should discuss this question *in extenso*.

Dr. Piffard commented at some length upon the pathology of lupus, and brought forward the fact that scarcely any two observers agree upon this point. He regarded the pathology of this disease as by no means settled. Passing to the essential nature of skin affections, he argued that they are in most cases of constitutional origin, and that the skin disease is an outward manifestation of a constitutional state. He was of the opinion that the diathesis upon which skin diseases depend is not so vague and uncertain in its nature as many are inclined to suppose.

Dr. McIlvaine looked with incredulity upon the theory of an acid and alkaline condition, and the presence of certain heterodox materials in the blood.

After a vote of thanks to Dr. Fox for his able report, the Society adjourned.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 13th to June 19th, 1875.

Hasson, A. B., Surgeon.—Granted leave of absence for twenty days. S. O. 121, Military Division of the Atlantic, June 15, 1875.

Steinmetz, W. R., Assistant Surgeon.—Assigned to duty at Cheyenne and Arapahoe Agency, Indian Territory. S. O. 91, Department of the Missouri, June 8, 1875.

Skinner, Jno. O., Assistant Surgeon.—Assigned to duty at St. Augustine, Fla. S. O. 79, Department of the South, June 14, 1875.

Charity Hospital.—Dr. Montrose A. Pallen has been appointed Attending Surgeon to Charity Hospital, in place of Dr. J. J. P. White, resigned.

Thymol.—The formula for thymol is $C_{10}H_{14}O$ and not $C_{10}H_{14}C_2$ as stated on page 423 of our last issue.

Original Communications.

ON SUBPERIOSTEAL RESECTION OF THE TIBIO-TARSAL ARTICULATION—PARTIAL AND TOTAL, PRIMARY AND SECONDARY.

By A. ROSE, M.D.,
NEW YORK.

Subperiosteal resections of joints were performed on dogs as early as 1830, by Dr. B. Heine, of Wurzburg. A large number of valuable specimens prepared by Heine are now in the Museum of Anatomy in Wurzburg. By means of these it has been proved that each joint of the canine skeleton can, after subperiosteal resection, be perfectly restored in its form as well as its function. Whereas, upon removing the ends of the bones which constitute a joint, together with the surrounding soft parts (capsule, periosteum, and ligaments), Heine found that no regeneration of the joint took place, and that only a false joint was the result.

The results of these experiments, communicated in 1834 by Heine to the Paris Academy of Medicine, caused Flourens and Ollier to make similar experiments, by which the latter proved the osteogenous function of the periosteum.

Langenbeck, having in 1840 inspected Heine's specimens in the Wurzburg Museum, was induced to perform subperiosteal resection on man. His first resections were made in 1842 on the joints of the finger, when he extirpated entire bones [not necrosed], and removed portions of bone, leaving the periosteum intact.

Frank H. Hamilton, at that time professor in Buffalo, discovered and described—quite independent from Langenbeck or any one else—reproduction of a whole phalanx after subperiosteal resection. The following is an extract from the *Buffalo Medical Journal*, Vol. V., 1849:

"Catharine Dolen, aged 24, admitted December 25, 1849. Thumb. The bone was necrosed, and on the 29th I extracted the phalanx entire. The inflammation having considerably subsided by the 3d of January, five days after the operation, I applied a tape roller the whole length of the thumb, and moderately tight. This was continued in intermissions during two months, when a new phalanx was found to have been formed of the same length, and breadth, and form as the original phalanx; the articulating surface was also reformed, and the flexor and extensor tendons so attached as that the motions of the joint were perfect. . . . It is the complete reconstruction of a bone when it has been removed in its totality by extraction that excites our surprise, and which we have marked as a novelty."

In the year 1850 Dr. Hamilton reported this case to the American Medical Association, and we find it in the *Transactions* of this society, in Vol. III., page 355. About at the same time Dr. Dudley described the same subject.

Langenbeck first attempted subperiosteal resection of a large joint in 1859, when he removed the head of the right humerus on account of caries. The specimen, which is preserved in the collection of the Klinikum in Berlin, represents the first case of a complete regeneration of the shoulder-joint after resection of the head of the humerus in man. On May 30th of the same year he made a subperiosteal resection of the tibia and astragalus of the Russian Lieutenant-General v. Kwizinsky, aged 68 years, who was wounded in the battle of the Alma in 1854.

The first subperiosteal resection of the ankle-joint in the field was made by Langenbeck, on the 1st of May, 1864. The wounded soldier, a drummer, was about to suffer amputation at the upper third of the leg, when Langenbeck was requested by the commanding General to leave no means untried to preserve, if possible, the leg of a soldier who distinguished himself in storming the Duppel (Denmark) fortifications. Langenbeck resected the ankle-joint only in such cases, where otherwise amputation of the leg was unavoidable and positively indicated.

Subperiosteal resection of the ankle-joint Langenbeck defines to be: severing of the fibrous layer of the epiphyses of the tibia and fibula, together with the ligaments attached to the articular ends of the bones, the separation of the periosteum from the bone, and the preservation of the interosseous membrane, whenever resection must be extended over a large surface.

This operation is called in Germany the typical resection of the ankle-joint, although it ought to be more properly designated as "*Langenbeck's operation.*"

All resections of the ankle-joint made previous to Langenbeck's operations were either extractions of bone splinters or the removal with the saw of irreducible extremities of the bones protruding through the skin in compound fractures and luxations, to which class belong especially the well-known operations of Sir Astley Cooper. At any rate there are no subperiosteal operations recorded before Langenbeck's time.

Although our experience about this operation comprises only a period of fifteen years, yet it is already an acknowledged fact, that the results obtained so far are exceedingly favorable, more so than in the resection of any other joint.

The union which takes place, after resection, between the bones of the leg and foot becomes so firm that the limb is able to bear the weight of the entire body.

A more abundant reproduction of bony tissue was observed at the ankle than at any other joint (after the removal of the lower extremities of the tibia and fibula), and by the tibia especially do we find this principle of regeneration possessed in a high degree. Even after an extensive resection of this bone a new, solid, and broad epiphysis, with malleolus, is formed, and the shape of the ankle-joint is hardly changed in appearance, if sufficient time has passed after resection and after a surplus portion of the callus has been resorbed, while the shortening caused by the operation is reduced to about one-fourth of that resulting from the other method of resection. Frequently the entire shortening amounts to but a few lines, or may even be entirely absent. Thus very large portions of the tibia and fibula may be taken away, without depreciating the usefulness of the limb.

Our knowledge of the growth and regeneration of bone to-day points to the preservation of the periosteum as the principal agent in these processes. According to Langenbeck some other agencies probably enter into this function. Possibly the ligaments retained, together with the fibrous layer, and certainly the interosseous membrane, cause the abundant formation of bone. This strong interosseous membrane, extending between the tibia and fibula, from the upper to the lower epiphyses, is evidently similar to the periosteum, and is, like it, likely to undergo ossification, as it is sometimes in a morbid state found to be changed into an osseous plate. It is exceedingly important in resecting to retain this membrane, so as to have an additional source whence bone may be reproduced.

The fact of there being neither muscles nor tendons attached to the lower extremities of the tibia and fibula renders resection at the ankle-joint especially favorable and certain.

In the above-mentioned first case of resection of the ankle-joint, performed by Langenbeck in the field on May 1st, 1864, the lower third of the fibula being fractured in three places, this portion of the bone was resected to the extent of seven centimetres; the shattered upper surface of the astragalus was removed next, and finally the lower end of the tibia, having been broken into several fragments, was sawed off to the same extent as the fibula. The patient has been, since the end of December, 1864, a servant in the royal household; in this capacity he has to go up and down stairs many times a day, to walk rapidly over exceedingly smooth floors, and often to remain standing for a long time, all of which he does with the greatest ease and without any especial fatigue. The configuration of the joint has in the course of time become perfectly normal.

I shall relate briefly but one more of the glorious resections performed by Langenbeck. On July 29th, 1864, he resected a piece of the tibia measuring eleven centimetres. The patient, a Danish lieutenant, visited Dr. von Langenbeck in Berlin in 1873, having just returned from a pedestrian tour in Switzerland, where he had ascended, in common Alpine shoes, Mount Rosa. His walk was perfectly normal, while the *shortening amounted to but three centimetres.*

I cannot but relate the remarkable case of Professor Volkman, which illustrates how much a resected ankle joint is able to stand and to perform. The patient, M. S., a young girl. was attacked at the age of twelve years with hemiplegia of the left side (paralysis of the face, arm, and leg), beginning with anæsthesia of the left little finger, and terminating after ten to eleven days in complete hemiplegia. Her mind was not disturbed; there was no fever. The attending family physician felt justified in ascribing the affection to hereditary syphilis. During the first months of medical treatment the paralysis of the face improved considerably, that of the leg a little, the patient being now able to move the toes somewhat, but the arm remained entirely paralyzed. The patient still continues in the same state. About nine months after the attack, in the spring of 1869, as alleged in consequence of a sprain, there appeared on the right tibia, close to the ankle-joint, a firm elastic swelling of a gummatous nature. After remaining inert for one year, this swelling broke and became an ichorous ulcer, at the bottom of which the bare and necrosed bone could be seen. A perforation into the ankle-joint suddenly occurred in the beginning of May, 1870, causing suppuration of the joint. Prof. Volkman, having been called in consultation, found the child very much reduced with a high fever, the ankle-joint useless and dangling in consequence of the destruction of the ligaments and cartilage, a profuse and ill-smelling suppuration, and purulent canals extending along the inner side of the calf of the leg. May 16th, 1870, resection of the joint was practised by the removal of an inch of the tibia, and thorough scooping out of the astragalus with a sharp spoon. In September every wound was closed; the patient, however, had to wait until December before making a serious attempt to walk; but she finally obtained nearly the full use of the resected joint. At the present time the foot can be flexed and extended to a normal degree. The motions of the foot are strong and sure, the patient using neither a cane nor any other support in walking about all day; while the entire weight of the body rests almost exclusively upon the right foot, the left foot being useless on account of the paralytic state. No visible shortening has taken place. The shape of the ankle is so perfect that if a thin stocking is put on nobody suspects that such an operation has been performed. Concerning this case Volkman makes the following remarks: "On witnessing an extensive resection of the ankle-joint for the first time, and perceiving that, immediately afterwards, the foot is united to the leg merely by the thin walls of a hollow cylinder, formed by the soft parts of the joints, and deprived of every firm support, one is struck with admiration at the enormous recuperative power of the human body by which such deep injuries can be redressed and redeemed."

The rate of mortality after resection is remarkably small, and the number of failures insignificant. According to Stauff's statistical tables, published in 1872, out of 104 cases, a really useful limb was obtained in more than 75 per cent.

As a first indication for a resection of the ankle-joint is to be mentioned an open wound of the joint. In compound fractures and luxations of the ankle-joint, with great lesions of the soft parts, and protruding bones, resection is urgently demanded. This indication has already been mentioned by Celsus: "*Ideo quod excedit, abscindendum est.*" Sir Astley Cooper especially recommended and performed resection with very brilliant results in compound luxations. Dr. F. H. Hamilton called especial attention to the value of resection in compound dislocations, in the first edition of his book on Fractures and Dislocations (1860), where he cited a case of compound dislocation of the ankle-joint in which he practised resection, to illustrate its advantage. On January 21st, 1875, I saw Dr. Hamilton, at his clinic in Bellevue Hospital, resect two inches of the lower end of the tibia in a case of compound dislocation of this bone. The patient was a young woman. The injured limb had been under the so-called expectant treatment for some time, had become the seat of phlegmonous inflammation, and was now in a most precarious condition. In a consultation, held before the operation was made, the question of amputation or resection had been raised, and the votes for the one and the other were equally divided. The patient, after resection had been performed, did exceedingly well; the foot is now perfectly in line and position, and complete recovery is assured.

As the sawing off of protruding bones does not belong strictly to methodical resections of the joints, it may be briefly mentioned that it is far preferable to the so-called conservative treatment. It is known that the rate of mortality after the latter method is not small. A large number die of pyæmia or septicæmia, while others have to submit to secondary amputation with or without success.

Compound fractures, with perforated joints, are caused principally by bullets. In referring to the classical writings of Hueter and Langenbeck on this subject, I may be permitted to quote part of the former's work on diseases of the joints:

"In traumatic suppuration, with accompanying injury to the bone, incisions for the purpose of giving an outlet to the discharge are generally insufficient. The relations of the bones forming the ankle-joint are so simple that a discharge of pus through an incised wound would not be prevented to any serious degree; but a lesion of the bones makes a very unfavorable change in the conditions. A broken malleolus drawn away from the articular surface of the astragalus by its ligaments, forms a little canal from which no incision can get a free flow of pus. Worse still are the fissures of the injured bones, which are rarely absent in perforating gunshot wounds of the tibia. In these the secreted matter collects, and thus maintains the suppuration of the joint even after an incision has been made, while rendering osteo-myelitis of the tibia possible as a sequence. Under these circumstances no reliance can be placed any longer upon a simple incision, which ought to be discarded for the safe method of resection."

It must not be understood that the conservative treatment of a gunshot wound of the ankle-joint is to be excluded. Langenbeck remarks most emphatically that it must be considered to the fullest extent, and that even such cases, where the ball passed right through the malleoli and the astragalus and fractured these bones, can be healed by an early incision and extraction of bone splinters. Resection, however, ought to be performed in a considerable number of cases instead of amputation of the leg.

I take this occasion to report a case of compound fracture of the malleolus internus which happened in my own practice.

W. Krause, 48 years old, born in Germany, single, farmer, was injured by a horse stepping on his foot; he received a fracture of the lower third of the right leg, with a compound fracture of the malleolus internus, which latter opened the joint. The attending physician placed the injured leg in a fracture-box, where it was kept for six weeks, and then had it kept quiet for five weeks longer. During this period both legs, as I was told, were attacked by phlegmonous inflammation, which was treated by incisions. In the injured joint, according to the patient's description, a synovitis hyperplastica granulosa had been aroused, the proliferous granulations of which were treated with caustic applications and then covered with adhesive plaster.

On August 29th, 1874, the patient was first seen by me. He had been living in the country, and was admitted to the St. Francis Hospital. The general health of the patient, who had been a robust man, was very bad. He was feverish; both lower extremities were œdematous. The fracture of the tibia and fibula was united; the foot, however, turned outwards in consequence of the destruction of the capsule and the ligaments. A portion of the superficially necrosed internal malleolus protruded from an ichorous, sanious wound. Resection of the joint was proposed to and accepted by the patient. Until the day of the operation, which I performed on September 2d, 1874, with the kind assistance of Drs. J. Simrock and B. Scharlau, the injured limb was placed in a warm water bath. As no serious hemorrhage was likely to be expected, I did not apply the elastic bandage of Esmarch, especially since this would have promoted the venous flow in an œdematous limb just taken out of a warm water bath.

The resection of the internal malleolus was made according to Langenbeck's method, which will be described hereafter. The periosteum being considerably thickened was easily separated from the bone, and was fully preserved. After the removal of the internal malleolus it was found that every other bone belonging to the joint was in a healthy state, in consequence of which the articular extremity of the tibia alone was removed. The piece thus removed measured 1½ inches. On the day following the operation the limb, properly fixed, was again placed in the warm water bath. On September 10th, Dr. Scharlau kindly applied a plaster-of-Paris bandage with Volkman's splint.

The cavity of the wound was soon filled with granulations, and was perfectly closed. On October 6th the first bandage was then removed and a more simple and lighter one applied.

On October 9th the patient complained of pain at the point of resection. After cutting a fenestra through the bandage, a small abscess was found and opened, when the pain subsided. In the course of the treatment the patient suffered occasionally from pain, which, however, was always found to be caused by an inconvenient position of the limb. The last plaster bandage was removed at the end of October. He remained in good condition until the 11th of November, when I resigned my position in the hospital. I was informed that on November 17th another abscess was suspected at the point of resection. An incision was made, a cataplasm applied, and the wound filled with lint. The patient, however, states that no pus, but merely "a watery liquid," was discharged. I next heard that the physician who then attended the patient at the hospital said that necrosed pieces of bone were still in the wound, and that, to my great astonishment, he proposed to amputate the foot on November 22d, at 2 P.M.

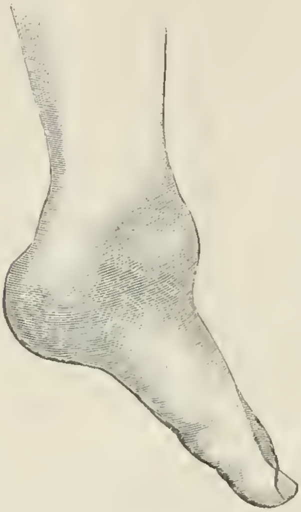
The patient, not acceding to the proposition, left the hospital on November 29th, and placed himself again under my care. I saw him for the first time, after I had left the hospital, on December 1st, when I found both lower extremities œdematous and a wound over the right malleolus internus nearly healed, but no sign or symptom of caries or necrosis, nor has any disease of the bone been observed down to the present time (March 27th, 1875). The cold and warm douche was alternately used upon the resected limb; electricity was also applied. Rubbing the limb with cold water was found especially useful. On January 3d, the patient was able, with the aid of sticks, to walk through the room; he also tried successfully, and without giving him any pain, letting the weight of the entire body rest on the resected foot. The patient then improved steadily, and on March 26th I had the honor to present the patient at a meeting of German physicians at the residence of Dr. A. Jacobi.

The resected malleolus was formed anew. The astragalus is united firmly to the bone of the leg by bony anchylosis; the longitudinal axis of the foot forming a right angle with the leg; the sole of the foot touches the ground, and stepping on the foot causes no pain. The gait is firm and secure; he needs no support, and is able to stand for a long time on the resected foot, while he lifts the other foot easily off the ground. He ascends stairs without any difficulty. On March 27th, he left New York to go to work on his farm.

A case operated on by Dr. E. Krackowizer belongs also to this category.

R. B., wireworker, at the time 36 years old, received, in consequence of a fall off the sidewalk on May 11th, 1868, a dislocation of the tibia forward; the articular end being thrown forward over the astragalus, consequently bringing the foot in posterior luxation. The force of the dislocation also caused a fracture of malleolus from above and behind, downward and in front. The engraving, made from a plaster cast, illustrates this unusual injury.

The patient fell into the hands of an irregular practitioner, who kept the injured extremity for ten weeks in a fracture-box. Dr. K. saw the patient in the beginning of August, 1868, when he found the limb in the condition described above. After an unsuccessful attempt to reduce the dislocation, resection of the internal malleolus was made on August 17th to the extent of two inches, splinters of bone from the pos terior portion of the malleolus being also removed. The resection was not made subperiosteally, and as no malleolus was formed, there is accordingly a shortening of the limb. The man is, however, able to walk by means of a high heel.



Injuries of the ankle-joint, by means of cutting or stabbing instruments, are of rare occurrence. I can speak of such injuries from my own experience only in other joints, especially the knee-joint. As soon as a joint has received a stab wound in a certain direction synovia escapes; suppuration of the synovial membrane may follow, causing in the larger joints, like the ankle joint, violent local and general symptoms. If infecting substances find their way into the synovial cavity, the heretofore healthy pus becomes ichorous and life is threatened, and the question is, "*Resection or amputation?*"

The same holds good in relation to incisive wounds. Although even in such injuries the wound may heal per primam intentionem in spite of the great irritability of the synovial membrane and the entrance of air into the articular cavity, yet the danger of the most violent inflammation of the joint is greater in incisive than in stab wounds.

Next to open wounds of the joints with or without injury of the bones, simple fractures of the bones might, in consequence of improper or negligent treatment, necessitate resection. It sometimes happens that in fracture of a malleolus or the malleoli no firm bandages are applied, but rather popular and useless liniments; the patient also tries too soon to walk, thus preventing a firm union of the bony fragments or their ligamentous connections. The foot then turns outwards, a "pes valgus traumaticus" ensues, and resection becomes the only remedy for its correction.

In coexisting suppuration of the joint and caries with general symptoms threatening the patient's life, resection or amputation must be decided upon.

Serious forms of articular inflammation may follow simple injuries, like a contusion, in consequence of neglect or wrong treatment.

In young subjects, especially those afflicted with a scrofulous or tubercular diathesis, a slight injury may be the cause of synovitis; sometimes an inflammation occurs spontaneously without any traumatic cause. We have in such cases frequently that form of synovial inflammation designated by Hueter "synovitis hyperplastica granulosa," or according to the old nomenclature, "tumor albus pedis." Billroth calls this affection the fungoid inflammation of the joint, from the occurrence of spongy swellings of very soft vascular and new connective tissue. The continuation of the synovial inflammation to the bone itself happens, according to Hueter, much sooner and more frequently than is generally supposed. Especially is the lower spongy portion of the tibia subject to diffuse, and less often to a partial, osteo-myelitis, while the primary affections, synovitis and chondritis, may, at the same time, be of a slight nature. Hueter saw patients who had not walked for years on account of the tenderness of the tibia, where after resection not only no suppuration was found, but only a very moderate granular proliferation on the synovial membrane.

In other cases of granular proliferation, collections of pus and articular fistulæ may be formed, followed by phlegmone extending up the leg. The entire constitution of the patient is affected, life is threatened, and the same symptoms as described before in the case of compound fracture forces the surgeon to choose between resection or amputation.

I want to add here that according to Dr. Hamilton's and my own experience the warm water bath is the best treatment for all chronic inflammation, and especially when the ankle-joint is attacked, as it promotes resorption of the connective tissue formed on synovial membrane and of the hydropic synovia.

Hueter is convinced that *resection of the ankle-joint is indicated whenever granular synovitis passes into suppuration.* He considers incisions, formerly recommended, at this stage useless.

Agreeing with this opinion, I should decide upon early resection. I observed in two cases of conservative treatment of hyperplastic granular synovitis a constant sinking of the patient. In one case amputation was performed at a late period, while the other was not operated upon. Both cases terminated fatally.

Most surgeons differ in opinion as to the advisability of resection of the ankle-joint on account of caries. The experience of Langenbeck has been rather unfavorable, for in eight cases operated on by him there was not even one successful.

In England resection of the ankle-joint on account of caries is looked upon unfavorably, many surgeons preferring amputation.

Hueter, however, claims to have been very successful, having performed resection in seven cases of disease of the ankle-joint with the best results in the clinic of Greifswalde, in two of which there was a movable joint with a formation of new malleoli. He was then convinced that resections of the ankle-joint, undertaken on account of organic disease, were quite as successful as those for the relief of injuries of traumatic origin, if properly performed and on proper indications.

Further experience must be looked upon with deep interest.

In deciding upon the advisability of this operation, the principal question will be, whether the local affection is an idiopathic disease, or the result of a constitutional sickness, and it will be impossible to ascertain this, whenever the physical examination furnishes only negative results.

A general or constitutional affection is to be excluded in cases where no cure follows resection, while a subsequent amputation heals easily. Langenbeck is of the opinion that local causes prevent the process of healing after resection of the ankle-joint in pathological cases. Having performed resection in a large number of cases of the shoulder and elbow-joint, he has never been obliged to make a secondary amputation; although several patients died after some years from tubercular disease of the lung, yet resection had been successful. He explains these contradictory results, on the ground that in most cases there exists in the lower epiphyses of the tibia and fibula a more intense susceptibility to disease.

According to Hueter, certain cases of "floating bodies" in the joints might be proper subjects for resection, not secondary resections in consequence of suppuration, but primary operations. He performed resection of the ankle-joint in a case which showed every symptom of a floating body, although he was unable to ascertain its actual presence until after the operation, when there was found a small body of the size of a pea attached to the posterior margin of the astragalus. The patient had been for some time unable to walk. The result was satisfactory.

Concerning the question of primary or secondary resection of the ankle-joint, experience teaches that primary resection ought to be undertaken in all cases of compound fracture and dislocation, with large wounds and protruding bones.

Although Volkman points out the generally believed view, that the functional result of a late resection is decidedly more favorable on account of the better formation of bone from the inflamed and indurated periosteum, yet he believes that an early operation, in all cases of *severe* destruction of the lower epiphysis of the tibia by gunshot, is the only means of reducing the mortality of these injuries and of avoiding the necessity of amputation.

According to Langenbeck, however, it is advisable to defer primary resection whenever the ankle-joint is destroyed by balls of a heavy calibre, keeping the joint in the meantime perfectly immovable and the wound open until the proper time arrives for secondary resection. In three cases of gunshot wounds of the ankle-joint, where all the three bones of the joint were injured, he applied, a few hours after the injury was received, a plaster-of-Paris bandage, and succeeded in obtaining an anchylosed joint and a useful foot. He points out the danger of primary resection in such cases of operating upon parts which might be threatened with necrosis on account of the injury, whereas, in secondary resections, a better judgment can be obtained of the condition of the several bones forming the joint.

As to my own experience in primary resection, I would refer briefly to a subperiosteal resection performed on a boy seven years old. I removed the clavicle on account of dangerous supra- and intra-clavicular abscesses complicated by periostitis. I first took away the outer half with the acromial extremity at a time when the bone itself was not yet affected, removing after a few weeks the inner half with the sternal extremity, which in the meantime had become necrosed. A new bone was formed, consisting of two portions connected by a fibrous mass. The patient could use his arm perfectly well. I presented this case in February, 1875, in Dr. Hamilton's clinic, and at a meeting of German physicians at Dr. Jacobi's residence.

Concerning the question of partial or total resection of the tibio-tarsal joint, a great difference of opinion is entertained among the surgical authorities. Hueter says as follows against partial resection: "Although I do not consider partial resection, especially the retention of the astragalus, a faulty operation, still I must express myself decidedly against the partial resection of this joint. The retaining of a malleolus must necessarily interfere with the prompt escape of pus from the cavity left after resection, which might result in phlegmonous inflammation and suppuration along the tendons and their respective sheaths. The retention of the astragalus is not accompanied by the same unfavorable results; it may, however, retard the healing process in a different manner. The astragalus is in most cases still covered by remnants of its cartilage, which may even in some cases be intact. This cartilage must either slough off or be covered by connective and granular tissues. In the latter case the newly formed bony tissue of the tibia is not united to a homogeneous substance growing from the astragalus. A firm union between the tibia and astragalus is delayed, and in consequence the intention of the operator—the securing a serviceable foot—rendered doubtful, and may even be completely defeated by obtaining a too movable joint. On the other hand, partial resection will offer no advantage, except making the operation somewhat less difficult. It will be best, on the whole, not to undertake a partial resection of the ankle-joint."

Langenbeck expresses the following opinion:

"My experience proves that both partial and total resection of the ankle-joint can be equally successful. If further operations confirm my views, it will be safe to resect in all cases as *little of the joint as possible*, as the after-treatment is easier in partial resection, while a shortening of the limb will also be more surely avoided than after the removal of large sections of bone, or of the articular extremities of all the three bones entering into the formation of the joint. A malleolus left in its place will prove a valuable support for the foot, render the application of bandages and other more elaborate contrivances more convenient, and indicate more plainly the length the limb ought to have; then the empty bag formed by the soft parts after a complete removal of the bone. In making resection of the ankle-joint I have always observed the following rules, an examination of which I desire the profession to make:

"1. *In caries of the ankle-joint*, with few exceptions, I always resected both malleoli and the superior articular surface of the astragalus. If deep-seated disease existed in the latter bone, I have removed it almost entirely with chisel or sharp scoop.

"2. *In fractures from gunshots of both malleoli and of the astragalus*, with considerable destruction of these bones, I have always performed total resection, leaving, however, occasionally the lower portion of the astragalus intact.

"3. *In a fracture of the internal malleolus alone* caused by a gunshot, I have resected *only the lower extremity of the tibia*, leaving the other two bones intact.

"4. *In a fractured fibula* I have, with one exception, always removed the *external malleolus with the superior articular surface of the astragalus*, although the latter bone was not injured.

"5. If the three bones were injured, while *one malleolus* was *simply fractured* without being broken into fragments, I have always left it in place.

"6. In an extensive fracture of the astragalus with the ball still remaining, I have extirpated the entire bone without removing the uninjured malleoli."

The practicability of partial resection has caused a good deal of discussion. Dr. L. Meyer (*Deutsche Zeitschrift für Chirurgie*) is utterly opposed to it, and cites a number of prominent surgeons in confirmation of his opinion. Having at a meeting of German physicians in this city spoken of partial resection of the great toe in hallux valgus, great surprise was manifested by one gentleman present at the favorable results obtained by Dr. Hamilton and myself, as they were so utterly at variance with the theory advanced by Dr. Meyer in his essay. I am of the opinion, however, that experience is decidedly in favor of partial resection whenever it is indicated.

The success of the operation with regard to life and future usefulness depends largely upon the manner of its execution.

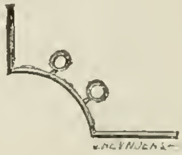
Langenbeck's method is generally adopted as the best, being practicable in every case and saving the tendons.

Resection of the fibula is first undertaken. For this purpose the foot is placed with the inner side upon a firm pillow. An incision 2–3 inches long is then made along the middle of the bone down to the point of the malleolus, cutting deep enough to sever also the periosteum. After reaching the malleolus, the incision is carried one-third of an inch further, cutting, however, merely through the skin, in order to save the tendons passing around the malleolus, and to facilitate the removal of the bone. The portion of fibula which is to be removed is next separated from the periosteum by means of the periosteal elevator, and then sawed off with the straight narrow saw. The index-finger of the left hand or a spatula is kept in the interosseous space in order to keep the soft parts from being injured by the saw. The bone is not sawn directly across, but in a somewhat oblique direction, by directing the edge of the saw a little towards the joint, thus facilitating the complete removal of the malleolus. The portion thus sawn off is removed by seizing its upper end with Langenbeck's resection forceps, or with a strong, sharp hook; and by gently rotating it, it is disarticulated with the aid of the knife and elevator. After this, the most tedious part of the operation is done. the foot is turned and placed upon its outer edge. Another incision similar to the former is then made along the inner side of the joint down to and through the periosteum. carrying the incision also superficially below the internal malleolus. The portion of the tibia about to be removed is sawn off in the same manner and removed like the fibula, by disarticulating it and separating it all around from the periosteum. The firm ligaments attached to the malleoli must be severed by short cuts, and close to the bone.

The astragalus is sawn off close to the cartilaginous portion by passing the saw through the two incisions. In order to perform this part of the operation successfully, the operator must practise it first on the cadaver; the assistant must use great skill in fixing the foot, and the wound is to be kept completely asunder with sharp hooks.

Hueter considers the removal of the astragalus with the straight narrow saw as the most difficult part of the operation, as the bone is almost invisible, while the saw is guided in the deeper portion of the foot almost exclusively by the point of the index-finger. Without this saw it would be necessary to separate the soft parts more extensively, in order better to expose the astragalus to view. Langenbeck, Hueter, and Volkman recommend, after arresting the hemorrhage and cleaning the wound, the introduction of a drainage tube. I have not done this in the case referred to above, as I did not consider it absolutely necessary in a partial resection. All surgeons unanimously recommend the plaster-of-Paris bandage, which enables the operator to keep the foot, which is now without any support, in the proper position at a right angle, so as to have the skin remain equally tense over the cavity.

A common bandage with windows is not suitable, as it is impossible to keep the wound clean and free from smell. The bandage designed by Volkman is very good for this purpose. It consists of two capsules, one of which encloses the leg and extends a little above the moderately flexed knee, and terminates close to the upper margin of the wound, while the other capsule encloses the foot as far as the metatarso-phalangeal articulations. These two capsules are united by a bridge made of sheet-iron and closely fitting the bend of the foot. In my case, which I have related above, this splint was modified somewhat. The upper end for about two inches was parallel to the leg, was continued into a bent bridge from the leg to the foot, thus assuming a half elliptical shape, and terminating in a piece two inches long and parallel to the dorsum of the foot. The splint or bridge had assumed this shape: Iron rings can be fastened to the splint through which strings are passed for suspending the limb. The secretions are allowed to fall into a porcelain vessel placed underneath. On applying the bandage, the limb is protected from the splint by a layer of cotton. The wound is treated in the usual manner.



It is the purpose of the surgeon to obtain a solid, though immovable joint. Passive motions between the leg and the foot are better omitted, as a too movable, and, consequently, less useful joint would be the result. The function of an anchylosed joint is naturally not extensive, but sufficient for most purposes. Sir Astley Cooper has called attention to the fact that an anchylosed joint cannot be discovered in a person walking quietly, as the absent movability of the ankle-joint is supplied by the tarsal joints.

The gait of a person with an anchylosed tibio-tarsal articulation is defective, if the foot is not kept at a right angle with the leg, or is even in pronation or supination. Attention must therefore be paid during the after-treatment to the necessity of keeping the foot always in the right position, and not to allow it to deviate from the right angle. Langenbeck recommends the use of the mason's square, if the surgeon cannot trust his eye alone, in order to detect the slightest deviation. He quotes the following advice of Celsus, which covers the main principle of all treatment of diseases of the joints:

"*Collocari quoque membrum quod ictum est, ratione certa debet; sic in inflammatione est, ut in neutram partem inclinatum sit.*"

◆

THE REMAINS OF VOLTA, the Italian physicist, were disinterred on March 30th, at Cammago-Volta (Como), and, after being publicly exposed, were the next day placed in a marble sarcophagus in a mausoleum erected in his honor by his family. The opportunity was taken of obtaining measurements of the skull; the internal capacity of which, as ascertained by means of fine sand, was 1,865 cubic centimetres. According to the calculations of Professor Limbroso, this was larger than the skulls of Cuvier (1,829 cubic centimetres), and of Byron (1,807), and a little smaller than that of Cromwell. It much exceeds the ordinary Italian skull, which is about 1,500 centimetres in capacity.

Progress of Medical Science.

SIGNIFICANCE OF DISTURBED ACTION AND FUNCTIONAL MURMURS OF THE HEART.—Dr. J. R. Leaming read an interesting paper lately before the N. Y. Academy of Medicine, having the above title. He commenced with a review of arguments adduced in a former paper of his, relating to the mechanism of the first sound of the heart. Dr. L. holds that the first sound of the heart is wholly due to vibrations of the chordæ tendinæ of the mitral valve, set in motion by the action of the blood-current. This he regards as the key to the explanation of an important share of the morbid sounds of the heart. These morbid sounds he divides into *valvular* or organic murmurs, and *intra-ventricular* murmurs, which are "more or less functional." The murmur of a valvular lesion is the "bellows" murmur of Laennec, and is a friction sound of blood gushing through a narrowed aperture. The intra-ventricular murmurs, are nearly always due to irregular vibrations in the chordæ tendinæ. Their tone may vary from a soft blowing murmur to harsh sawing, rasping, or filing sounds, and where the vibrations are rapid, the tone becomes distinctly musical. Vegetations or calcifications of the valves projecting into the current of blood may sometimes be thrown into musical vibration, but this is very exceptional, it is claimed, and musical murmurs are almost invariably intra-ventricular. The intra-ventricular murmurs are termed functional, because due to irregularities in the heart's rhythm and not to valvular changes. Yet they occur in organic disease as well as in the so-called functional cardiac affections. They are believed to constitute a large majority of the morbid sounds in structural diseases of the heart, where they arise in consequence of the irregular tension of the tendinous cords produced by changes of structure. Where the intra-ventricular murmurs are purely functional, they have their source in nervous derangements, and may be traced most commonly to a disordered stomach or to indigestion.

Considerable importance is attached to the acoustic properties of the chest, as affecting the character of the cardiac sounds. Illustrative cases are given where the occurrence of pneumonia or pleurisy has caused the sudden disappearance of cardiac murmurs previously heard, and which returned with the lapse of the intercurrent disease. The reason of this is supposed to be that the pulmonary effusions interfere with the transmission of the finer heart sounds to the ear. The mechanism is illustrated by comparing the chest to a musical instrument—to a violin; if a watch be suspended within the instrument, and a stethoscope is applied to the wall outside, the sounds of the watch will be conveyed to the ear clearly and distinctly, but if we now fill the cavity of the violin with sand or water, and then listen, no sound will be heard.—*Reprint from the Transactions of the N. Y. Academy of Medicine.* 1875.

CAUSE AND PREVENTION OF TYPHOID FEVER IN SCHOOLS.—Towards the close of the last year a serious epidemic of typhoid fever broke out in a well-known boarding-school for young ladies, at Burlington, New Jersey. For the purpose of ascertaining the causes which led to the outbreak, the trustees of the institution engaged the services of Dr. J. L. Leconte, as sanitary expert, who now presents the results of his investigations in a communication to the Philadelphia *Medical Times* (May 29, 1875). An examination of the premises of the school elicited the following facts: Two large cisterns were situated near the school, from which the water supply was obtained. In building the cisterns it was necessary to cut holes in them in laying the floors, in order to relieve the pressure from the spring water, the floors being below the level of the subterraneous drainage. These holes were afterwards plugged, and the water supply was derived entirely from the river. A year later, for some reason, the plugs were removed. Some three years ago, privy vaults were built, one of which was incautiously placed within a dozen feet or so of one of the cisterns. Leconte infers that matters gradually oozing from the vault had little by little contaminated the surrounding soil, till they finally gained access to the cisterns through the holes from which the plugs had been removed, and so polluted the water. As evidence that the polluted cistern water was the sole cause of the epidemic, it is mentioned that as soon as, at the suggestion of the physicians of the school, water only was used which was drawn directly from the river, not another case of the disease occurred. Several other significant facts are mentioned also. For instance, it was learned that no cases of typhoid had occurred amongst the servants, and on inquiry it was ascertained that they had not been in the habit of drinking the cistern water excepting in tea and coffee, that is, *after it had been boiled*. Moreover, the majority of the girls who had been attacked had drank water alone—were not tea and coffee drinkers.

In conclusion, the writer calls attention to the following recommendations, which, if adopted, it is thought, will afford the most effectual means of obviating similar epidemics in future: 1. Before the plans of the building are fully matured, let an expert in sanitary studies be employed to give directions to the architect in all that relates to ventilation, drainage, and water supply.

2. After the building is completed, no alterations should be made affecting these three essentials of a good hygienic condition, without the suggestion of a practised sanitarian.

3. There should be stated inspections, say twice a year, of each institution by some sanitarian of acknowledged merit, who, after close examination and the correction of any defect, would give a certificate to be published in the circular or announcement of the school.

4. On the outbreak of any zymotic disease in the institution, the advice of a sanitary expert should at once be obtained, in order that means may be taken for its restriction, suppression, and prevention.

REMOVAL OF A MYOMA OF THE BLADDER, WITH RECOVERY.—A lad, twelve years of age, was brought to the clinique of Prof. Billroth on June 3, 1874, suffering from what was supposed to be stone in the bladder. The symptoms had existed for some ten months, and the most prominent were pain in the region of the bladder and in the glans penis, especially after urinating, with very painful, frequent, and almost involuntary micturition. Repeated and careful examinations with the sound, aided by the finger in the rectum, satisfied the surgeons that they had to do with a tumor attached to the posterior and upper wall of the bladder, nearly in the median line, that it was of the size of a small fist, and of uncertain nature. The following operation was performed on the twelfth day after his admission. The lateral perineal section was first made, and the diagnosis confirmed by introducing the index-finger. The bladder was then again entered by the suprapubic operation, the insertions of the two recti muscles being divided to gain room. For fear that the tumor might be connected with the peritoneum through the wall of the bladder, it was decided not to use the écraseur, but to remove the growth near its base, having previously ligated the pedicle. This was done, and a drainage-tube passed through the perineal wound. The patient made a remarkably good recovery, having no fever after the sixth day. On the nineteenth day the urine was passed entirely through the urethra, the drainage-tube having been removed on the fifth day. The tumor was a trifle over three inches long, and rather more than an inch and a half wide, and in gross appearances strongly suggested a fibroma. The microscope, however, showed that it was mainly composed of spindle cells, which were not to be distinguished from those of the organic muscular fibres, thus constituting an exceedingly rare form of tumor in this situation. Besides these smooth muscular fibres there were also found a very large number of cells of the most various forms and sizes. The tumor was found to be directly connected through its base with the muscular coat of the bladder. Dr. Gussenbauer, by whom the case is reported, concludes that it should be classified as a myoma.—*Archiv für klin. Chirurg.*, xviii., 2, 1875.

Polypi of the Rectum.—Dr. W. Bathurst Woodman concludes an interesting article on the above subject with the following summary of his views:

Polypi of the rectum in children are probably less rare than is generally imagined. They generally grow from the posterior wall of the rectum. They are easily recognized by digital examination. Such examination should be made whenever the symptoms suggest a polypus. These growths should always be removed. Removal by the ligature, some form of écraseur, twisting off with forceps, the galvanic or gas cautery are the most appropriate methods.

The polypi may be gelatinous, cystic, warty, fibrocellular (desmoid), or cancerous, and probably sarcomatous; possibly other varieties of structure may occur.

Of all the varieties the desmoid (fibromata) are the most common.

The pedicle, at all events, and sometimes the tumors themselves, are very vascular; hence the knife, if used at all, requires great caution.

There is often a tendency to spontaneous cure, which should not, however, be trusted to much.

The children of arthritic parents, and those suffering from the syphilitic, tuberculous, and cancerous cachexia, are most liable to these affections.—*The Medical Press and Circular*, May 5, 1875.

Precaution against Puerperal Infection.—At a meeting of the German Medical Society, in St. Petersburg, Dr. Grünewaldt detailed the measures which were adopted at the lying-in asylum of that city to prevent infection. Acting on the theory that some wound or laceration of the parts concerned in labor presented a nidus for the reception of the disease, attention was also directed towards these points, and the results had been happy. The most common starting-point was held to be the vagina, or the mouth of the womb; at these points the poison was absorbed and the disease travelled onwards along the planes of connective tissue. The rule observed was to examine every woman, by the aid of a speculum, immediately after labor. Every laceration or abrasion was then carefully attended to, and as soon as a morbid appearance, such as diphtheritic deposit or the like, was noticed, a solution of carbolic acid in water, one part to twelve, was applied, or the sesquichloride of iron in a similar proportion. If the disease advanced, and there were signs of endometritis, injections were practised by means of the double catheter. The indications for intra-uterine injections were:—1. Retention of the membranes. 2. Retention and decomposition of coagulated blood. 3. In lochiometra. 4. In any form of endometritis. 5. In secondary hemorrhage.—In fact, he said it was customary to use a weak solution of carbolic acid, one part to 400, as an intra-uterine injection, immediately after labor, in all cases, by way of prophylaxis.—*Rundschau*, April 12, 1875.

To Disinfect and Deodorize Excrements.—Dr. Camerers, of Ulm, has tried some experiments with reference to this subject, using for the purpose diluted urine, and as disinfectants, carbolic acid, sulphate of iron, English sulphuric acid, and caustic lime. He has found that the sulphate of iron and the caustic lime alone are capable of preventing the formation of low organisms. He therefore recommends these latter for purposes of disinfection, as the most certain, the cheapest, the most free from danger, and as preserving their properties best when dissolved in water. Two classes of substances act as deodorants of excrements; first, such as fine sand, powdered mould, or clay, etc., which form a coating over the stinking surface; and second, such substances as charcoal, which absorb the offensive gases. He states that a vault with a capacity of 20 cwt. can be rendered perfectly free from smell in the course of twenty-four hours, by scattering about in it a few pounds of pulverized charcoal. The charcoal does not, however, prevent putridity and the formation of low organisms.—*Rundschau*, April 12, 1875.

Poisonous Dyes.—It is well known that the beautiful aniline colors are obtained by the aid of arsenic; the excess, however, Dr. Nowak states, may be removed from the finished material when the process is carefully conducted. When such precautions are not observed, and the coloring matters are used for confectionary and the like, disastrous results may follow. There has been less reason for anxiety about textile fabrics dyed with aniline colors, because of the very small quantity required to color silk and woollen materials, the arsenic being thus very much diffused, and the goods, moreover, losing any excess in the subsequent processes of washing, etc., by which they are prepared for market. This is not always the case, however, and the explanation of the occasional presence of dangerous quantities of arsenic is the following: Woollen and silk readily take the dye from the aniline solutions, but vegetable substances, such as cotton and linen, require previous preparation to enable them to do so. For this purpose a mordant is used, in this way: They are dipped into a solution containing clay and arsenious acid, which makes them capable of retaining the aniline colors, though at the same time it makes them highly poisonous.—*Rundschau*, April 12, 1875.

Treatment of Chorea by Arsenic in Large Doses.—Dr. Eustace Smith, in a note to the *British Medical Journal*, of May 1st, 1875, emphasizes the value of arsenic in chorea, but states that it was not so generally known that the curative value of the drug is greatly increased by administering it in full doses. Children have a remarkable tolerance for it, especially in such a non-febrile affection where there is no increased irritability of the digestive organs. To a child between the ages of five and six and twelve, he would give in this complaint as much as ten minims of Fowler's solution three times a day, directly after meals. The influence of the treatment is seen almost immediately, and it is rare for any of the physiological effects of the drug to be seen. Under this treatment, he says that severe cases seldom last longer than a fortnight.—*British Med. Journal*, May 1, 1875.

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THE PREVENTION OF THE CONTAGIOUS DISEASES OF CHILDHOOD.

From the time that the various contagious diseases have been known as such, the great problem with the profession and with the laity has been how to prevent their spread. In ancient times the afflicted ones were banished, and left to die in some isolated place, for fear of spreading the malady. In fact, all sorts of barbarous regulations were enforced, which, from the present standpoint of an enlightened humanity, seems hardly credible. Since that time we have made many advances, and many points of dispute have been satisfactorily settled. On the great question of quarantine and other general measures to prevent the spread of epidemics there is a general agreement on the means to the end, which is dictated by a liberal conservatism, and by a desire to accomplish the greatest protection consistent with a proper respect for the liberties of the people.

This is all well enough so far as it goes, but very little, if anything, is done to prevent the spread of those diseases, contagious in character, which seldom if ever rise to the dignity of epidemics, or command a sufficient amount of interest with the general public to call for suitable legal enactments. Particularly is this the case with the contagious diseases of childhood. The number of children who are annually sacrificed to these scourges by the carelessness and ignorance of parents and guardians is simply appalling. While we admit that it is sometimes impossible to guard against the contagion of scarlet fever, measles, whooping-cough, diphtheria, and other like diseases, owing to the intricate and ramifying associations of society, we nevertheless have means within our control which, if judiciously used, may be the means of saving many precious lives. We have often thought that physicians do not take as much pains as they might in instructing the people concerning the direct contagious properties of these diseases, the great necessity for thorough disinfection of the sick chamber, the importance of house quarantine, and the liability of carrying the poison by the clothes of attendants. We believe if the danger of transmitting the disease was fairly impressed upon the heads of families, greater care would be exercised in preventing the promiscuous intercourse of families, and would tend to discourage the abominable and useless practice of visiting the sick for the mere gratification of curiosity, and afterwards scattering the seeds of the disease through every household in the neghborhood. A writer in a recent number of *Harper's Bazar*, in speaking of the dissemination of contagion by means of ordinary visiting, makes the following statement, which doubtless has a parallel in the experience of almost every physician in general family practice:

"We have seen fine ladies making calls in a house where two or three children were down with scarlet fever, quite careless as to whether their next call was to be made in one where the children had not yet received the dark guest, and have met with the servants of a house as yet safe, chatting cosily in the kitchen with the servants of the house where the nursery was a hospital of contagion, and this when that especial disease is the most dreadful in all the known category of diseases, both at its height and in its results, and when the germs of its contagion live for weeks, and are so subtle and powerful that they have even been carried hundreds of miles in a letter."

We believe the only way to counteract this tendency to propagate the disease, is for each physician in attendance upon cases of the sort to establish a family quarantine, so to speak, and strive, by every reasonable means, to limit it to that quarter. If physicians also would be careful that they are not themselves the media for the spread of the disease, it would be well. We do not see why they should not be as particular in their intercourse with children, after seeing cases of scarlet fever, as they are bound to be with lying-in women while in attendance upon cases of erysipelas, pyæmia, and the like.

Another means of propagating these diseases is the school-room. In fact these places are considered to be the very hot-beds for the poisonous germs. But this is a matter to which we have so often referred in advocating the sanitary supervision of our schools, that it is unnecessary to give it more than a passing allusion at this time.

The attendance on the funerals of persons who have died of these diseases, is another of the many means of spreading the contagion. In cases of small-pox, this is prevented by the Health Board; but we are not aware that any attempt is made to hinder the promiscuous assembling of persons to attend the funeral of children dead with scarlet fever, measles, or diphtheria. Very frequently a great many persons attend who have no knowledge whatever of the disease which caused the death. Numerous instances of this sort have come to our personal knowledge, and have suggested to us the practicability of publishing the cause of death with a notice of the funeral. This, it strikes us, could be enforced by the Health Board, and would, in a measure, at least tend to correct a great evil.

As we have before remarked, there are many circumstances connected with the spread of these diseases over which we may have no special control, but the proper education of the public concerning the contagious character of the disease, the establishment of house quarantine, of thorough disinfection, the exercise of care on the part of ourselves in carrying the disease from house to house, are besides other matters entirely within our control. If we conscientiously discharge our duties in this respect we will accomplish a great deal of good. At the present time, when so many families are changing their residences, when so many infected apartments are left to be occupied by unsuspecting victims, the matter assumes a very grave importance, and more than ever commands the attention of the family physician. The Health Board has it in its power to do the community a grand service by the inspection of all those houses having these contagious diseases. This is done in the case of small-pox, and we see no reason why it should not be the case with scarlet fever and other children's diseases. If this were so the houses could be properly infected and be kept sufficiently long in quarantine to render it safe for occupation. The same regulation might be enforced in regard to public hacks, which are notoriously liable to propagate all sorts of diseases. In these cases the licenses could be revoked until the vehicle was properly disinfected.

NECESSITY FOR INCREASED ATTENTION TO VACCINATION.

The Board of Health have issued a circular, which has been sent to physicians in the county, calling attention to the increase of small-pox, and indicating the localities where it is most prevalent. A map is kept at the office of the Board of Health on which is indicated the location of cases as they occur, and physicians and others interested are invited to call and familiarize themselves with the relative distribution of the disease.

Since there is a certain proportion of people who decline being vaccinated when they are visited by the Inspectors for that purpose, saying that they prefer to have the operation performed by their own physician, the Board propose ascertaining the address of the physician in such instances, and will notify him of this fact.

Physicians are urged to pay special attention to vaccination, and revaccination is imperatively needed at the present moment.

The Board is using every means in its power to limit the spread of the disease, and deserves, as we hope it will receive, the hearty co-operation of the profession.

INDEPENDENT EXAMINING BOARDS.

The editor of the *Philadelphia Medical Times*, in an article upon the reason why medical colleges are not endowed, speaks very truly as follows: "A number of medical gentlemen get together, apply to the Legislature for the right of giving a medical degree, and then produce an annual crop of doctors. Such is the brief history of the rise of a medical school. There are two distinct functions performed by its professors,—educating in medicine, and giving the right to practise medicine. It is not the first of these that the average student cares for solely, or even chiefly; it is the second that he wants.

"If any man doubts this, let him ask himself how many students would any institution get which simply taught medicine and did not give a degree.

"It is plain that the medical institution holds a valuable franchise from the Legislature, and expects to make the degrees pay for the medical teaching. The faculty is therefore pretty much on the platform of a firm united together for the purpose of profit. In an institution like Bellevue Medical College, where the faculty is self-appointed, the parallel is exact. In the University or the Jefferson Medical College, the only difference is that the firm has for its supposed advantage given up the power of selecting its own members. Under these circumstances it would be absurd to expect philanthropists to give money to endow medical institutions: as well might they add to the capital of Wanamaker & Brown, P. T. Barnum & Co., or any other combination of men engaged in a laudable effort for gain.

"In order to bring the medical colleges into their proper sphere of being simply schools of learning, the various Legislatures ought to take away their power of giving the right to practise, by creating State Examining Boards. But the colleges have it in their own power to place themselves in a position to obtain endowments without any legislative aid. Let them reform medical education by lengthening their courses and raising their standards, and then say to the public, 'Medical teaching, properly carried out, can never be self-supporting; we appeal to you for endowments.' If this were done, and the enormous influence the profession wields in the aggregate brought to bear, American medical colleges would lead the van, and would not be a by-word and a scoff among the institutions of learning."

The plan of independent examining boards is one which we have frequently urged in these columns, and must in our opinion initiate the reform in all matters connected with the present system of medical education.

* * *

Dr. Tilt.—Two of Dr. Tilt's works—his *Handbook of Uterine Therapeutics*, and *Change of Life*—have been translated into Italian by Dr. Rey, of Rome, and the Italian Government have made him a Knight of the Crown of Italy.

Reports of Societies.

NEW HAMPSHIRE MEDICAL SOCIETY.

Eighty-fifth Annual Meeting.

Special Report for The Medical Record.

This Society met at Concord on Tuesday, the 15th inst., at ten o'clock in the forenoon, its proceedings rendered interesting by the presence of nearly one hundred members, many of whom took part in the discussions that ensued. After the formal opening and the election of new members, the President, the venerable Dr. Nahum Wight, of Gilmanton, delivered the anniversary address.

ADDRESS OF THE PRESIDENT.

After urging a more thorough education on the part of medical students, he advocated the formation of more local societies throughout the State, and the proper instruction of the public by the profession. The latter, he believed, would prove one of the best means of combating the growth of quackery in all its various forms.

REMOVAL OF THE ARM AND SCAPULA.

Prof. A. B. Crosby, of the Dartmouth and Bellevue Medical Colleges, read a very interesting paper upon the "Removal of the Arm, Shoulder, Scapula, and more or less of the Clavicle at one Operation." The doctor commenced by saying that the paper was a filial tribute to the memory of his father, the late Dixi Crosby, M.D., LL.D., for more than thirty years Professor of Surgery in Dartmouth College, and he asserted that he only paid a just debt long due when he claimed for his father the honor of being the first to perform this formidable operation either in Europe or America. He gave a graphic description of the operation, which was performed in 1835, and then read an analysis of all reported cases of this operation. It was noted as creditable to New Hampshire surgery that the first three operations of this kind were performed by native surgeons in the order mentioned, viz., by Dr. Crosby, Dr. Mussey, of Hanover, and Dr. Twitchell, of Keene.

REPORT ON GYNÆCOLOGY.

The Society at 2 o'clock P.M. took a recess, and upon reassembling listened to a very able report upon gynecology from Dr. Wilkins, of Manchester. This paper evidently struck the right key-note, so far as this Society is concerned, for the speaker was warmly applauded when he condemned in no measured terms the fearful abuse lavished upon that unfortunate little organ by uterine specialists. He does not believe in holding the uterus responsible for *all* the ills of womankind, and reprehends the indiscriminate use of escharotics, intra-uterine pessaries, sounds, etc.

PLASTIC SPLINTS.

Dr. Hersey, of Manchester, then read a very practical paper upon plastic splints, illustrated by the exhibition of models, patterns, drawings, etc. After reviewing the history of plastic splints, and the materials used in their construction, he gave a very decided preference to plaster-of-paris and pasteboard, both strengthened and reinforced with thin strips of iron or zinc. A brief report from the Standing Committee upon Necrology closed the afternoon session.

The evening meeting was called to order at eight o'clock, when Dr. Child, of Bath, read a paper upon the

ABSOLUTE NEGLECT OF SANITARY LAWS IN THE RURAL DISTRICTS.

He stated, what every country practitioner knows to be true, that throughout the older settlements of northern New England farm-houses were built only with reference to the highways, no matter whether this brought the dwelling in a swamp or upon the north side of a hill, and the cess-pools, sinks, and wells were and are constructed as near the house as possible, with a view to labor-saving only. He instanced many such farm-houses in his vicinity, where the drainage from the stable and privies was allowed to filter into the family well, while the sink-washings were poured upon the surface with the vegetable débris of scores of dinners. What wonder, then, that typhoid fever, diphtheria, and scarlatina should prevail, even in the much-vaunted country air? The doctor insisted that the profession owed a duty to the public in teaching the fundamental rules of sanitary science and instructing their patrons how to avoid disease and promote longevity. He gave some simple rules for the arrangement of country dwellings with reference to drainage and water supply, and wound up with an appeal to the profession to do its full duty in the premises.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Dr. Fowler, of Bristol, read a very interesting but brief paper upon epidemic cerebro-spinal meningitis. Following this there was a free and full discussion of the origin of typhoid fever and diphtheria, in which some twenty gentlemen participated. The treatment of the latter disease was discussed, and the use of pure quinine and chlorate of potass. fully endorsed, while all local treatment, except ice, was condemned. Dr. Jewett, of South Berwick, Me., a delegate from the Maine Society, gave in his adhesion to the views of Sir William Jenner concerning membranous croup and diphtheria.

The closing session of the Society was held at eight o'clock A.M., June 16, when some routine business was transacted, and a committee was appointed to obtain the passage of a law similar to the New York statute concerning the registry of physicians and for the suppression of quackery. It was voted to hold the semi-annual meeting, which is mainly festive in its character, at the Fabyan House, White Mountains, about the middle of September. Your reporter would add that upon this occasion, every September, the doctors of New Hampshire take their wives and daughters and make the meeting an excuse for a pleasure excursion of three or four days. In this they are joined by a great number of medical gentlemen from Massachusetts and Maine, and we should only be too happy to have New York City and State send us a full delegation, accompanied by their families.

The election of officers resulted in the choice of Dr. S. M. Whipple, of New London, as President; Prof. A. B. Crosby, Vice-President; Dr. G. P. Conn, Concord, Secretary; and Dr. Thomas Wheat, Manchester, Treasurer.

A Strike of the Doctors.—According to the *Journal de Genève*, the Canton of Glarus is threatened with a strike of doctors. Out of twenty-three licensed medical practitioners, twenty-one declare that they will no longer perform any official duties until the medical examinations be once more entrusted to a committee of competent men, and the regulations be so modified as to allow of the use of an effective sanitary police.

MEDICAL SOCIETY OF COUNTY OF KINGS (N. Y.)

Stated Meeting, May 18th, 1875.

APOCYNUM CANNABINUM—ITS VALUE IN DROPSICAL AFFECTIONS.

Dr. Hutchins, in a case of general anasarca, complicated with pleuritic effusion and hydropericardium, where the patient, a man of sixty, was suffering from extreme dyspnœa, the result of the enormous distention, after the failure of all the expedients used to excite the kidneys, made a trial of the apocynum cannabinum, based on the somewhat remarkable experience of Dr. Jewett, of Canandaigua, N. Y. (The reader is referred to an article contributed by this gentleman to the N. Y. State Med. Soc., and published in its *Transactions* for 1869, pp. 137 to 139.)

The drug was procured from a well-known house and prepared *pro formâ*, and was administered without effect. Specimens were obtained from other drug houses, and several fluid extracts were used, and still without effect. Believing that Dr. Jewett's experience was not mythical, he was appealed to for advice, and some of the drug, of his own collecting, was forwarded by mail, prepared according to directions, and administered to his patient. In 48 hours the man, who had been so frightfully distended, was reduced to a skeleton. Though he died about a year afterwards, the water never again accumulated, any disposition thereto being immediately relieved by the infusion of this drug.

With additional supplies, obtained from Dr. Jewett, Dr. Hutchins had promptly relieved two cases of dropsy following scarlatina, and one case of phlegmasia alba dolens.

Dr. Jewett, under date of February 16, 1875, writes: "The woody fibre of the root has little value. You will find the bark intensely bitter, and that it has to be used with some caution, or it will provoke vomiting and diarrhœa.

"Its great value consists in its diuretic action, which will be impaired by any hydragogue cathartic. Sometimes its effects are direct and positive, at others, and especially in case of vicarious action of bowels, it is more tardy.

"I have the report of a case from Buffalo of hydrothorax, with general dropsy, where the amount of urine in the first 24 hours was incredible, after all the ordinary remedies had been exhausted, and the man 'given up.' The milk weed was given empirically by the nurse, and the patient is fast recovering.

"If your patient will bear stimulants, I would give the medicine in gin, and combine with it an ounce or two of juniper berries, breaking the skin of the berry, but not the seed.

"Put half ounce in a pint of gin, add an infusion of two ounces of juniper berries in a pint of water. If the stomach and bowels are irritable, give a teaspoonful every four hours. Give 2, 3, or 4 teaspoonfuls at a time, if the stomach will tolerate it, until the effect is obtained.

"An experience of thirty years in its use has given me unbounded confidence, if properly used. I could astonish you with the cases that have come under my observation since the publication of the article in the *Transactions*."

Under date of June 14th, 1875, Dr. Jewett writes: "A case came to my notice yesterday where a medical man, who was skeptical as to its efficacy, was induced to try it at my request, as every other remedy had been exhausted. The preliminary arrangements were made for the funeral. The patient took the *milk weed* and is well to-day."

Dr. Hutchins argued that Dr. Jewett's experience with the apocynum cannabinum of his own collecting, and the prompt action of the drug furnished by Dr. J. in the cases above related, combined with the fact of the utter failure to procure any appreciable diuretic effect from the various specimens or fluid extracts, as kept by prominent drug houses, lead to the conclusion that the apocynum, capable of producing diuresis, is not usually, at least, to be obtained in the shops.

The Dispensatory asserts that the *root* is the officinal part. Dr. J. claims, and the facts support the claim, that the *bark of the root* is alone active.

Four specimens were shown to the Society, one from Dr. Jewett, which was the *bark of the root*, and three others, obtained from three leading drug houses in New York, one being the *woody fibre* without the bark, one being the *whole root*, and one being the *leaves and stems*.

Dr. H. was cognizant of a case of an elderly gentleman, subject to occasional attacks of dyspnœa from hydropericardium, which were speedily relieved by a very minute dose of the fluid extract frequently repeated.

Dr. Armor expressed his great interest in the case reported by Dr. Hutchins, for he had similar experience in the use of the *apocynum*. In a case of general anasarca under his observation, a few years since, at the suggestion of a consultant physician, he was induced to try this, to him, at that time, a new remedy. The dropsical accumulation was immense, and all the usual remedies had been tried in vain. The apocynum was administered in the mode suggested by Dr. Hutchins, and within seventy-two hours the patient was drained almost to the condition of a skeleton! The effects were the most marvellous that he had ever witnessed. The patient was somewhat exhausted, but readily rallied under the use of general tonics and stimulants. He was kept on the use of quinine and tincture of iron for months afterwards, during which time there was little or no return of the dropsy.

Encouraged by the prompt and powerful action of the new remedy, he determined to give it further trial in the wards of the Long Island College Hospital, but his experience there somewhat disappointed his hopes. In one case of general anasarca the effects of the remedy were almost as prompt and powerful as in the case just cited—the fluid rapidly disappeared, and the patient, under general supporting and tonic treatment, made a good recovery. In other cases, however, apparently similar in every respect to the ones reported, the remedy—although the same preparation of it was used—had little or no effect. Now, what is it which, in one case, gives us such prompt and powerful action of the remedy, and in another we get no therapeutic effects whatever? I studied the action of the remedy in the cases observed with great interest, but am not able to answer the question suggested. The cases were apparently similar, and the remedy and mode of administration were the same. It is proper, however, that I should state that in the cases in which I failed to remove the fluid by the *apocynum*, I subsequently tried the usual remedies, such as digitalis, squills, calomel, iodide of potash, etc., with similar results. On the whole, I am favorably impressed with the remedy, and shall give it further trial. I have little confidence, however, in cathartics, diuretics, apocynum, or any other medicinal substance, in removing fluid effusion in closed cavities when it results from acute or subacute *inflammation* of serous tissues. The fibrinous deposit, interposed between the subpleural vessels and the liquid effusion, greatly impedes the absorption of the serous fluid; beyond a certain point I very much doubt the value of pushing hydragogue cathartics and diuretics. A very marked distinction should, I think, be made between an effusion in a closed cavity, the result of an *exudation*, and that which results from a *transudation*. In the one instance it is an *inflammatory* product, and requires time or surgical interference for its removal; in the other it is a mere *transudation*, the result of a general dropsy, and is readily removed by appropriate medication. It is only in the latter form of effusions into closed serous sacs that I would have confidence in apocynum, or watery cathartics, or diuretics; in other words, the value of these agents is in proportion to the general character of the dropsy.

Dr. Burge referred to cases lately treated by him with the fluid extract of apocynum cannabinum.

1st. A lady, three weeks after confinement, consulted him on account of ascites and general anasarca. Urine highly albuminous. Ten drops of the fluid extract every three hours caused profuse and persistent diuresis. The anasarca was promptly and permanently relieved. At the end of three weeks the peritoneal cavity was emptied by means of the aspirator. The patient continued the remedy in five-drop doses three times a day, and at the end of one month the disposition to effusion seems to be overcome.

Case 2.—Called to see a child æt. 6 months. Found him with hot dry skin, staring expression of countenance, fontanelle prominent and with a feeling of fluctuation. The mother said he was extremely restless, and she thought his urine scanty. Half a drop of the fluid extract of apocynum cannabinum was given every three hours, in some pleasant vehicle. After several doses, he vomited once. The medicine was then given three times a day, and after the second day the fontanelle was perfectly natural, and the child seemed as well as ever. At the end of three weeks he had a similar attack, which was treated in the same manner and with the same result. He is now well.

Dr. Burge took exception to the view which was strongly expressed by prominent members of the Society, viz., that medicines have no power to reduce an accumulation of serum in the pleural and peritoneal cavities. These effusions often subside spontaneously, and why may they not be hastened by appropriate medication?

In cases of acute pleurisy and rapid effusion, the fluid is often as rapidly absorbed, and Dr. B. had always ascribed some efficacy to the means which he had employed.

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Singular Obstetric Custom.—A correspondent of the *Lancet*, speaking of an absurd custom which prevails in Yorkshire, says: "The patient is confined with her clothes on, *all* her clothes (except perhaps her bonnet and shawl)—boots, stockings, drawers, petticoats, stays, dress, and the rest. If labor happens to set in when the woman is undressed in bed, the first rush on the part of herself and friends is to get her clothes on. She then usually lies down on the under mattress, the upper mattress or bed being turned over out of the way, and the labor goes on to its termination. When the placenta comes away the woman, without any further delay, is "got into bed," as it is called. The process consists in her getting up and standing on the floor, or sitting in a chair, while her clothes are taken off, a clean night-dress put on, and the bed made, when she mounts into it as if nothing in particular had occurred."

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, June 4th, 1875.

Dr. E. R. Peaslee, President, in the Chair.

Dr. R. Tauszky read a paper upon the "Uses of Water in Fevers, according to the Views of Dr. Winternitz, of Vienna," of which the following is a brief abstract.

The mortality from fevers has lessened considerably since the application of water in their treatment has been practised by skilful hands.

Febrile diseases become more dangerous to life the greater the production of heat within, and the less active the removal of the heat from the body.

It is the principal duty of the physician in the management of fevers to lessen the fever heat by all the means at his command. If our interference with disease is not precise, we can never expect measurable results.

We must know how to do, if we wish to do right, and a strict method is necessary in physical therapeutics. We are at present far from possessing precise methods, but the little we do have of precision is of great value.

The following, according to Winternitz, are the methods in which water is to be used.

Simple ablution, friction-baths, half-baths, full-baths, shower-baths, wet pack, continuous local, and continuous general baths.

The indication for simple ablution, or the sponge-bath, is where the temperature is not over 101 or 102° F. When used in higher fever it is principally for its effect as a nervous stimulant; it also prepares the skin for more potent measures. This means must be repeated every half hour, accomplishes the desired result only in a very unsatisfactory manner, and will produce elevation rather than lowering of temperature if not followed by a more potent measure.

The friction-bath is more useful than the simple ablution, and is accomplished by wrapping the patient in a sheet wet in water at a temperature of 62 to 53° F. Before applying it, cool the head for the purpose of preventing congestion of the brain, which would otherwise follow. This bath has the advantage of being purely a nervous stimulant. It causes dilatation of the blood-vessels of the periphery of the body, and must have, as a matter of course, a great influence upon the action of the heart. Rubbing the skin gently also increases the amount of evaporation more than fifty per cent.

In children, especially in the eruptive fevers, when this bath is used the exanthema will appear in full view, thus rendering diagnosis certain in many cases where it was before uncertain. It is especially serviceable also in acute articular rheumatism, first wrapping up the inflamed parts and rubbing the cooler parts of the body until these get warm. The half-bath must be continued from twenty to thirty minutes, and the temperature should not be lower than from 65° to 54° F. It may be assisted by pouring water over the neck, chest, and back. If the patient is very sensitive, it is well also to first place a cloth over the head and pour water upon that, particularly if dealing with patients who are unconscious. The half-bath is preferable to the full-bath. In the full-bath the weight of the water prevents proper reaction. The disadvantages of too cold a bath are that the colder the water used the quicker the reaction, and the sooner the return of the fever heat; and it is also too powerful a nerve stimulant, and will sooner exhaust a patient. A patient should never feel chilly while in a bath, and as soon as the skin begins to assume a bluish color he should be at once removed.

The patient is more likely to feel chilly in the full-bath than when the half-bath is used. It may be set down as a rule, that the water used for lowering the temperature when fever is present must be of a lower degree than for cooling the healthy body. Elevation of temperature will soon take place when the wet pack is used, but there is no means of reducing the pulse as quickly as it can be done by this method. The principal rule to be observed in the use of water is to methodically repeat whatever method of application is used, and neither during the day nor during the night to permit the continuance of a high temperature for much length of time.

Correspondence.

THE PRESBYTERIAN HOSPITAL AFFAIR.

To the Editor of The Medical Record.

Dear Sir: It seems to me that even your admirable editorials and the correspondence they have called forth, still leave something to be said on the "Presbyterian Hospital Affair." May I venture to add, then, *first*, as to the matter of advertising which has been charged upon some of the signers of the protest by "*Medicus*," with the approval of The Record? It is hard to be serious in the face of the charge that sixty-odd of the hospital appointees of New York have, by allowing the publication of their names and titles in *The Tribune*, appended to a protest in a matter between laymen and physicians, violated the law which states that we shall not advertise that we practise "special branches, as extra inducements to patronage," or that they have thus resorted to "public advertisements." If this kind of interpretation of the Code goes on, the fact of the appointment of medical men to hospitals by laymen will soon be kept sedulously from reporters, and be only known to the Managers. The second quotation from the Code refers obviously to differences between medical men. The Code, indeed, as quoted by your correspondent, states this explicitly; *e.g.*, "The feelings of medical men may be painfully assailed in their intercourse with *each other*." With all due deference to "*Medicus*," it is the opinion of the present writer that the Code not only does not answer his question, but has nothing to do with it. This hospital affair is a difference between cultivated and distinguished laymen on the one hand, and the majority, as I believe, of the thoughtful members of the profession in New York on the other. The fact that a minority of the medical officers of the hospital persist in adhering to the Board of Managers in their action, which, it is believed by the profession, brings dishonor upon it, only goes to prove what has been urged in The Record, that medical men have "invited the issue" by playing "the part of toadies to the appointing power." This affair being then a contest between a professional and non-professional body, as one of the signers of the protest I am glad that it was published in *The Tribune* as well as The Record, and I fail to find any violation of our Code in it.

Secondly, as to the actual matter at issue, all of the professions will be greatly interested in the justification of the Managers, or the majority of them; the minority need no justification, which is promised us by "*Medicus*." It is hard for those who are not of the Managers of the Presbyterian Hospital, and for some who are, to see why it was well to "fail to re-elect four competent medical men," without giving them a chance to be heard, even if the Visiting Committee said "it was all right," and even if they were advised by other Boards, that when they had any trouble betweeen doctors and superintendents, to "get rid of the doctors." It is harder still to conceive how reputable medical men could assist in any such procedure. Without explanation, it remains a stigma on our calling, which we are in all self-respect bound to cast off and repudiate. The merits or demerits of the gentlemen who failed of a re-election have nothing to do with the question, which simply is, Why were they condemned unheard? To this point we hope "*Medicus*" will turn his attention in his championship of a Board of Managers who will not answer for themselves.

As to your correspondent "*Veritas*," his argument seems to be, that because, as he claims, such things as this Presbyterian Hospital affair have, with the connivance of medical men, been done before, in the Nursery and Child's Hospital and Bellevue, therefore the profession should be quiet now. Assuming these cases to be parallel with the one now under discussion, we may simply answer that three wrongs will not make one right, and instead of objecting to the present protest, let us rather rejoice in the advance of medical unity and *esprit de corps*, in the aroused sense of fair play in the profession, which, if kept up, will finally put a stop to both the encroachments of laymen and to the artful connivances of medical men, if such are practised, who attempt to manage hospitals and dispensaries in their own selfish interests, by cringing to boards of direction, that "thrift may follow fawning."

The issue as to our rightful status in hospitals, it seems to many of us, may as well be met now as to be postponed. Let us as a united profession submit to nothing which makes us less than the peers of our fellow-philanthropists. We must as a profession be adequately represented on Boards of direction. Then if rebukes are needed, medical officers will receive them from a source fully competent to judge of their delinquencies. Boards of Managers of large numbers, with only one or two of the medical staff upon them, will never be free from the suspicion of being controlled as to medical matters by one or two men. The system that admits all but the assistants in the medical department to seats among the directors already obtains in some small hospitals in this city and Brooklyn. Wherever it does, no such proceedings as those which have greatly impaired the noble charity of a noble man, have ever occurred, will ever occur. It is within my personal knowledge that the advice has already been given to one of the Managers of the Presbyterian Hospital, by one of another similar institution, "never to yield to these Doctors." I will not say that we should never yield to laymen in matters of which they know better than the medical profession, much less that we should condemn them unheard; but conceiving as I do that in this matter the honor and dignity of our calling are involved, much as we all must regret any collision with such eminent and philanthropic gentlemen as form the Board of Managers of the Presbyterian Hospital, or with those medical men who retain or accept positions in its medical staff, I do not see how we can do less than protest, and also solemnly refuse to give our professional countenance to proceedings, which, in the lack of better information than is now before us, must be stigmatized as unjust, and as tending to degrade the members of our profession.

With great respect,

D. B. St. John Roosa.

June 19, 1875.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 20th to June 26th, 1875.

Simons, James, Surgeon.—Relieved from duty in Department of the Gulf, and assigned to duty as Attending Surgeon and Examiner of Recruits in Baltimore, Md. S. O. 121, A. G. O., June 19, 1875.

Head, J. F., Surgeon.—Granted leave of absence for one month. S. O. 85, Department of the South, June 23, 1875.

McClellan, Ely, Assistant Surgeon.—Having reported in compliance with S. O. 121, c. s., A. G. O., assigned to duty in the office of the Medical Director of the Department. S. O. 85, Department of the South, June 23, 1875.

Janeway, J. H., Assistant Surgeon.—Relieved from duty in Department of the Missouri, to proceed to New York City, and upon arrival report by letter to the Surgeon-General. S. O. 121, c. s., A. G. O.

Koerper, E. A., Assistant Surgeon.—Relieved from duty as Attending Surgeon at Detroit, and assigned to temporary duty at Fort Wayne, Mich. S. O. 124, Military Division of the Atlantic, June 19, 1875.

De Loffre, A. A., Assistant Surgeon.—Granted leave of absence for one month on surgeon's certificate of disability. S. O. 106, Department of the Missouri, June 21, 1875.

Medical Items and News.

The Successor of Liebig in the professorship of chemistry in the University at Munich is to be Prof. Baeyer, of Strasburg.

Measles in the Fiji Islands.—*The Lancet* says, in referring to the epidemic of measles, which is said to be almost depopulating these islands: "Hundreds have already died, and for the last few weeks eight or ten deaths have occurred every day. A fatal termination of the malady is ushered in by dysentery. Although the families of white residents have been attacked, no fatal seizure has yet been reported among them. The natives are too frightened and suspicious to submit themselves to medical treatment, hence they are terribly punished. Precautionary measures towards suppressing the disease have been ordered by the government, but the general panic renders it impossible to enforce them. By the latest accounts trade was quite at a stand-still, and the number of deaths reported to have already occurred is said to be 50,000, although this is undoubtedly a gross exaggeration."

Scarlatina is epidemic in Chester and Montgomery Counties, Pa., and is reported to be malignant in type, and attended with great mortality.

Drs. Isaac E. Taylor and Gouverneur M. Smith have resigned their positions as Visiting Physicians to Bellevue Hospital, and the former has been appointed Consulting Physician. Professor Alpheus B. Crosby has been appointed Visiting Physician in the place of Dr. Taylor, and Dr. J. P. P. White to the Department of Children in place of the latter. Dr. White has resigned his position as Visiting Surgeon in Charity Hospital.

The Medical Department of Yale College is to celebrate its anniversary on the 28th ult.

Pharmacy in Japan.—With the view of obviating adulteration, laboratories have been established by the Japanese Government at Jedo, Kiyoto, and Osaka, for the purpose of examining drugs, and of giving Japanese youth practical instruction in pharmacy after having passed through a theoretical course in natural science. Dr. Dwars, formerly of Amsterdam, is at the head of the laboratory at Osaka; and Dr. Geerts occupies a similar post at Kiyoto. The Japanese Government have ordered, that any druggist who has in his possession sulphate of quinine or iodide of potassium in the adulterated state shall be punished for the first offence by a fine of fifty yan ($25).

South American Skulls.—The Emperor of Brazil has recently sent to Professor Virchow, of Berlin, a very interesting collection of skeletons and skulls (including some found in old caverns in Brazil), together with an autograph letter.

Rides for Convalescents.—During the warm season, for two years past, the board of government of the Boston Young Men's Christian Union have furnished carriage rides for many of the patients in the hospitals of their city, giving them the benefit of short excursions into the fresh air of the country. They are now, for the third season, soliciting funds for the continuance of this excellent charity.

Punishment of Abortionists.—On May 24th, Dr. Smith and a Mrs. Ingham, convicted of causing an abortion, were sentenced, in Quincy, Ill., to eight years' imprisonment each.

A Dr. Zeills, of California, has sued the famous James Lick for professional services, amounting to $55,000, to which Mr. Lick claims a full offset in his bill against the doctor for board and lodging.

Samuel Pollock, M.D., read the poem at the commencement of Dickinson College, at Carlisle, Pa., on the 22d ult.

The Public Baths which the city has for three years past provided for the public were again opened on the 10th ult. This year they are located at the foot of Fifth Street on the East River, and at Tenth Street on the North River. They are open daily, except Sundays, from 5 a.m. until 9 p.m. No person will be admitted without tickets, which are distributed free, but subject to refusal on the part of sanitary or police officers. These swimming-baths have become so popular that, it is reported, on the 12th ult. twenty-five thousand persons applied for permission to bathe.

Professor Bufalini, of Florence, the author of a well-known essay on Life, and of an esteemed work on Analytical Pathology, died at Florence on March 30, in the eighty-eighth year of his age. His funeral ceremonies were performed on the most splendid scale, and were attended by representatives of all the learned societies of Italy and the Universities of Pisa, Rome, Palermo, Maurata, Pavia, Modena, Padua, and Turin. Amongst the pall-bearers were the Italian ministers of agriculture, commerce, and public instruction; the Mayor and the Prefect of Florence, the President of the Institute, and the President of the Medico-Chirurgical Association. By his will Professor Bufalini has left a prize of 10,000 francs, to be awarded every ten years, to the writer of the best essay on the true indications of the experimental method in all scientific researches and acquisitions, which shall also embody the applications attained by the divers sciences, and the progress which the experimental method has made, during the period which has elapsed between two competitions.

Dr. C. L. Peck, of Burlington, Vt., sails in a few days for Europe, and our readers may expect to hear through him interesting intelligence on medical matters from various points.

A Bavarian Prince has adopted the profession of medicine, and is said to have become a very successful practitioner. Recently he performed a very difficult operation at the Munich Ophthalmic Hospital.

Dr. W. K. Bowling has resigned his connection with the Nashville *Journal of Medicine and Surgery*.

Dr. M. Gonzalez Echeverria, lately of this city, is soon to publish in London a new work on the medical and legal aspects of epilepsy.

Female Medical Students.—Twenty-four female students have pursued their studies during the winter session of the London school, recently established.

Curious Belief in "Maternal Impressions."—A writer in the *Field*, an English sporting journal, on the subject of the "New Norwegian Game-Laws," says: "On my return to Trondhjem. (bringing game, including a hare), I met an acquaintance, who, seeing the hare, besought me with much earnestness to cut off its nose. I inquired his reason for wishing me to mutilate the animal thus. Replied he, 'I do so for your sake; you are rendering yourself liable to a fine. It is an article of belief here that, should a woman in an interesting condition see a hare that has not been deprived of its nose, her child will be born hare-lipped. The law protects the new-born."

Vivisection.—The Hospital at Florence.—A Philadelphia correspondent of the *Lancet* says: "A severe criticism has recently appeared in a Florentine newspaper upon the enormously multiplied vivisections of Professor Schiff, of that city. It is stated by the Italian editor that, within the past few years, 15.000 dogs have perished under his hands, and the editor very pertinently asks what adequate result has been achieved through all this hideous suffering? It appears, also, that Professor Schiff obtains his dogs through the agency of dog-stealers. who are paid by him. It may seem strange that the Florentine municipality should permit this without interference; but the fact will appear less surprising when it is known that this body is almost as indifferent to human suffering as to canine. The hospital at Florence has a most unenviable reputation. The mortality amongst its inmates is so great that, with the lower classes. to be sent to the hospital is considered to be pretty much the same thing as to be sent to one's grave. The stench is sometimes perceptible in passing along the street. It will scarcely be believed that the severest operations are performed in it without the use of anæsthetics—at least this was the case two years ago, when I made a long stay in Florence, and received this fact on excellent medical authority. The reason assigned was that the chloroform furnished the hospital was so dangerously bad, that the surgeons were afraid to use it."

The German Sanitary Association will be held this year in Munich, on September 13th. 14th, and 15th. The following questions have been proposed by the committee for discussion: 1. The determination of a plan for examining into the local and temporal causes of epidemics of typhus (including enteric fever): reporters, Professor von Pettenkofer and Dr. Port. 2. The sanitary requirements of new buildings, especially in new quarters of large towns: reporters, Dr. Varrentrapp, Engineer Burkle-Ziegler. 3. The sanitary requirements as regards diet in orphan asylums. barracks, prisons, and alms-houses for old persons, and also in public kitchens: reporter, Dr. Voit. 4. On the object, means, and limits of a sanitary police control over some important articles of food, especially bread and meat. 5. On public slaughter-houses and the introduction of a general supervision of the slaughtering business, and of a compulsory inspection of meat: reporters, Burgomaster Gobbin and Dr. P. Börner. A sixth subject for discussion is proposed by Dr. Lunt, of Cologne, viz.: the establishment of a general law for Germany, on the examination of dead bodies, with, as far as possible, a medical determination of the cause of death.

Vivisection in England.—The English Government proposes to appoint a Royal Commission to inquire into the facts relating to experiments on animals. In view of this action, the bills before the Parliament will probably be withdrawn if they have not already been, and the real facts of the case will be made public, freed from the sensational element which has its origin among those who with time and money on their hands, and sensitive emotional natures, undertake the reform of what appears to be an evil, without first taking the trouble to become familiar with the subject.

Changes in the Medical Faculty, McGill College. Montreal.—Dr. Geo. W. Campbell, Dean of the Faculty, has resigned the chair of Surgery after an occupancy of 38 years. Dr. Geo. E. Fenwick succeeds Dr. Campbell as Prof. of Surgery. Dr. R. T. Godfrey (late of Bishops' College) has been appointed to the chair of Hygiene, and Dr. T. G. Roddick as Prof. of Clinical Surgery. Dr. W. Gardner (late of the Bishops' College) has accepted the chair of Medical Jurisprudence, and Dr. Sheppard has been appointed Demonstrator of Anatomy.

The Sanitary Association of Montreal.—A number of the prominent citizens of Montreal have formed themselves into an association with the above title, with a view to improving the sanitary condition of their city. There is already a health board in operation. and the design of this association is not to interfere with the legally constituted authority, but to second their efforts by arousing public and individual attention to the urgency of adopting sanitary measures.

Wisconsin State Medical Society.—At the twenty-ninth annual meeting, which was held at Madison, on the 2d and 3d ult., the following officers were elected for the ensuing year: *President*, J. B. Whiting, of Janesville; *Vice-Presidents*, Ira Manly, Jr., of Waukesha, and F. Senn, of Milwaukee; *Secretary and Treasurer*, J. T. Reeve, of Appleton; *Assist. Secretary*, Dr. Nichols, of Milwaukee. Milwaukee was designated as the next place of meeting, and the following gentlemen were elected delegates to the American Medical Association: Drs. Manly, Waterhouse, Strong, Palmer, Butterfield, Fox, Dodson, Mason. Armstrong, Rogers, Stansbury, Bond, Griffin, Cory, Zielley, Britt, Linde, Whiting, Smith. and Hobbins. The committee appointed to take measures to secure a law for the appointment of a State Board of Health. reported that, thus far, efforts had been unsuccessful. A resolution was adopted declaring it inexpedient that a medical college be established in Madison.

Testimonial to Señor Garcia.—A number of English physicians have resolved to present Señor Garcia with a testimonial of their appreciation of his researches in relation to the physiology of the larynx and the mechanism of phonation. and have appointed Dr. Louis Elsberg, of this city, Honorary Secretary for the United States. Dr. Elsberg will receive such subscriptions as the friends of Señor Garcia in this country may like to make to the fund.

Original Communications.

A CASE OF INTESTINAL OBSTRUCTION —OPERATION AND REMARKS UPON THE OPERATION OF LAPAROTOMY.

By ERSKINE MASON, M.D.,

PROFESSOR OF CLINICAL SURGERY, ETC., UNIVERSITY MEDICAL COLLEGE, NEW YORK.

On the afternoon of May 1st, 1875. I was asked by Dr. Henry F. Walker to see with him a patient in his service at Bellevue Hospital who was suffering from obstruction of the bowels. The history of the case, as recorded by Dr. Hill, House Physician, was as follows:—Mary D., æt. thirty-four, widow, born in England, was admitted into Bellevue Hospital, April 26th, 1875. She had had two living children and several miscarriages, the latter caused, she believed, from ill usage at the hands of her husband. After the birth of her first child (nineteen years ago), she gave the history of suffering from a severe attack of peritonitis. From that time to the present she had enjoyed good health. On the night of the 21st of April (Wednesday), she retired, feeling well (her bowels had not, however, been moved for two days previous). During this night, she was seized with severe pain in the bowels, and the following day the pain became intense, and the abdomen began to swell. The swelling continued to increase, and on Saturday, the 24th, she was seen by a physician, who ordered her an injection of warm water and oil of turpentine: this afforded no relief, but the following day, she stated two or three hard pieces of fæces were expelled. Accompanying these symptoms, there had been frequent vomitings. When she entered the hospital her bowels were quite tympanitic, and when examined, she complained of a general soreness over the abdomen rather than acute pain; she also vomited frequently a greenish fluid. In spite of the treatment she received while in the hospital, which consisted in the use of morphia, cathartics, and large enemata by means of the long rectal tube, her condition was not improved; and her symptoms became more urgent.

When I saw her, she was lying upon the back with her limbs extended, movement of these, however, giving her no pain. There was no prolapsus of the bowel, nor had there been any bloody or slimy discharge from the rectum, nor the presence of any hernia. Her face was flushed; pulse weak, 104; R 24; T 99½. All her symptoms had been aggravated to-day. The secretion of urine had not diminished, and the vomiting, which was now almost constant, especially if anything was swallowed, had never become stercoraceous. No pain was complained of, and none elicited upon percussing the abdomen, which was extremely tympanitic, save over the right hypochondriac region corresponding to the hepatic flexure of the colon. A general consultation of the physicians and surgeons of the hospital was called, which met the following morning to take into consideration the propriety of surgical interference. On the morning of the consultation the patient's general condition was about as on the previous afternoon, her abdomen if anything was more tympanitic. The general opinion expressed was that the obstruction existed in the small intestines, and in all probability due to the presence of bands, the result of her old attack of peritonitis; and the only thing that offered any prospect of relief lay in abdominal section, or laparotomy. As regards myself, I was rather inclined to the belief that we should find the difficulty to exist either in the transverse or descending colon, and my reasons for entertaining this view were as follows:—First, that the only locality in which pain was complained of, was over the transverse colon in the vicinity of the hepatic flexure; second, because we were informed that the long rectal tube had been supposed to have encountered obstruction in the vicinity of the sigmoid flexure; and third, because the secretion of urine remained free—it having been observed by the late Dr. Barlow, Mr. Hilton, and others, that where the small intestine is interfered with, this secretion is diminished or suppressed. It is true, however, that this is more manifest the nearer the lesion of the small intestine is to the pylorus.

The patient was accordingly removed to my service in the hospital for operation, which was done at half-past three on the afternoon of Sunday, May 2, the fourteenth day since the bowels had moved, and the twelfth since the attack of pain. At the time of operation, her condition could not have well been worse, her extremities were cold, and she was suffering from extreme prostration. When under ether, I introduced, through the abdominal walls, into the transverse colon the fine canular of the aspirator: this allowed the free escape of gas and the abdominal walls became flaccid. An examination now revealed the presence of no tumor. Placing the patient upon her left side, I now passed my right hand up the rectum a distance of seven inches, measuring from the tip of my middle finger. The fingers could be swept over the promontory of the sacrum and around the true brim of the pelvis, but thus far no obstruction could be detected. This examination occupied some moments, and I was compelled to desist from farther attempts to examine the bowels farther up owing to the tightness with which my hand was grasped by the external sphincter, and from an impediment which was offered by the tip of the coccyx, which turned abruptly forward. This latter, in the case of my patient, presented a serious obstacle to manual examination of the bowel through the rectum, which I had not met with in a previous similar examination, nor have I observed it mentioned by others who have called attention to this mode of exploration. Had I prolonged my research in this direction, or used more force to overcome the obstacles that have just been mentioned, I fear I should have but added to the gravity of the case a ruptured bowel.

The patient being now placed upon her back, with the assistance of my colleague, Dr. Frank H. Hamilton, I proceeded to the operation of laparotomy.

The bladder having been previously emptied by the catheter, I opened the cavity of the peritoneum in the median line for a distance of four inches, terminating about an inch above the symphysis pubis. When the peritoneum was opened, there was an escape of some bloody serum; no fecal odor was perceived. The intestines presented somewhat distended with gas, and of a reddish hue; no other discoloration was observed at any time during the operation.

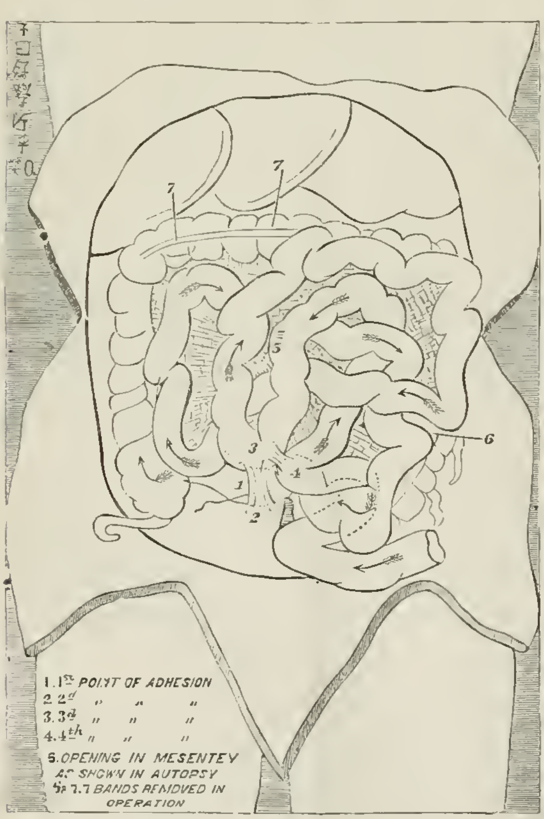
Passing my hand into the cavity of the abdomen, the transverse colon, from its commencement onward, was found bound down to the abdominal wall by adhesions; these were broken away without difficulty. On the left side, apparently stretching over the upper part of the sigmoid flexure, was a band, which was also broken away by the fingers. No other adhesions, or anything else abnormal, save the reddish congestion of the intestines, being observed either by Dr. Hamilton or myself, the wound was brought together by the interrupted wire suture. During the dressing of the wound, the condition of my patient was most alarming:

she became pulseless at the wrist, and her respiration seemed for a moment to have ceased. These were restored, however, by means of artificial respiration and hypodermic injections of brandy. She was then placed in bed, and the hot-air bath employed; and when I left her, a half-hour after the operation, she was breathing well, and had a good pulse at the wrist. She rallied from the shock of the operation, but during the night, she again began to sink, and died at three, A.M., May 3d, eleven and a half hours after the operation.

The autopsy was held that afternoon at half-past three, under the supervision of Dr. Edward G. Janeway, and the following are his notes of the same.

Autopsy (3d May).—Exterior, a well-nourished woman; brain and membranes not examined; lungs, normal; old pleural adhesions; heart, old pericardial adhesions; abdomen.—The peritoneal sac contained a moderate amount of blood-stained serum; there was no fecal matter in the peritoneal sac, but there was some recent exudation on parts of the intestine, to be presently described, gluing the knuckles of intestine together at this point. The large intestine was distended with gas, and contained some fecal matter.

The small intestine was markedly distended, partly with gas and partly with fecal matters. About six inches from the junction of the ileum with the cæcum, the ileum, for a short distance at its lower border, was adherent to the right broad ligament and Fal. tube.


7
7
5
3
6
1
4
2
1. 1st POINT OF ADHESION
2. 2d " " "
3. 3d " " "
4. 4th " " "
5. OPENING IN MESENTEY AS SHOWN IN AUTOPSY
6 & 7. 7 BANDS REMOVED IN OPERATION

The next ten inches of the small intestine, with its mesentery, formed a band surrounding and evidently (when the intestine was distended) constricting the portion of the intestine to be next described. Then this portion passes through an opening made by the adhesion of a knuckle of intestine at two points near together, and at the site of the adhesion previously mentioned. After passing through, the intestine forms a circular loop twelve inches in length, which at its extremity becomes adherent at the above-mentioned place, and then curving upwards descends and becomes again adherent at the same site. The loop thus formed is about eight inches in length, and makes the opening described above, its mesentery helping to form the opening. The intestine at this part was of dark slate color filled with fæces, but was not in a sloughy condition, was simply deeply congested and "colored partly post-mortem."

Above this, the intestine presents a brighter congestion, or is pale and contains pale yellow fæces.

Liver normal, save a number of old adhesions.

Kidneys, granular. Normal size.

Uterus large, presents an intra-mural myoma and adhesions posterior to rectum, and also to left Fal. tube, by thin old membrane. The right Fal. tube and broad ligament has the adhesions of intestine previously mentioned. The uterus was coated in some parts by recent exudation.

Rectum distended, but presenting no laceration.

It is not my intention to make any exhaustive remarks in connection with this case, in reference to laparotomy, as the subject of operative interference in cases of intestinal obstruction has so recently been ably considered in a paper in the *New York Medical Journal* for August, 1873, by my friend Dr. Samuel Whitall, of this city, and by Dr. John Ashhurst, Jr., in the *American Journal of the Medical Sciences* for July, 1874. The subject of intestinal obstruction is one which has for some years been of great interest to me, and both from observation and a study of the literature upon this subject, I had determined that, should an opportunity offer, I should resort to operative interference, believing that, in the majority of cases, it is the only measure that holds out any prospect of relief to the patient. And in this view I feel more strengthened from the experience obtained in a single case, even though it was a fatal one; and the report of the autopsy shows that the whole nature of the difficulty was not discovered, and from this cause the operation failed (even if it were possible in this instance) to remove every source of obstruction.

The subject of operation in these cases is certainly now being studied anew by the profession, at least, if we are to judge from the various articles that have appeared upon this and kindred subjects in our journals during the past few years. I feel *sure* that laparotomy and colotomy will certainly grow more and more in favor, though the obstacles which they now have to contend against in the minds of many are very great; and the results will prove more and more favorable, the earlier they are resorted to, and when the minds of patients are not depressed by being instructed that the operation is at best but a forlorn hope.

Very many of the major operations in surgery were once regarded in the same light as laparotomy or abdominal section is now viewed by many. Witness, for example, the history of lithotomy and ovariotomy. The latter certainly has banished the fear which the surgeon once had in reference to a wound of the peritoneum.

Perhaps few cases are beset with more difficulties, or are of greater anxiety to the practitioner, and more severely tax his diagnostic skill, than those of intestinal obstructions.

The various causes that may give rise to this trouble are clearly set forth in our text-books; and the general rule laid down, that in acute cases the lesion is to be looked for, in the small, while in what we term the chronic cases it will be found in the large, will in the main be found true. The symptoms also which should belong to each class we also find clearly tabulated; but in practice how often are many or all these symptoms presented in a single case, so that all the acuteness of the most skilled diagnostician fails to disentangle them, or read them aright, so that he can clearly say that the lesion is alone situated in one or the other intestine, or its exact nature. Should the case be one in which it was clearly evident (and these we often meet with), that the source of obstruction is situated in the large intestine, and which medical means fails to relieve, we believe the operation indicated is lumbar colotomy; while if the lesion is situated in the small intestine, or its locality be shrouded in mystery, medical means having failed to afford relief within twenty-four or forty-eight hours, according to the gravity of the case, laparotomy is called for, or perhaps a more simple mode of procedure may first be employed, and with prospect of success, if *too much* valuable time has not been given to medical efforts alone, viz., the tapping the intestine with a fine trochar, and thus relieving their distention by gas. .

In a short paper like this it is not necessary to cite all the objections that have been urged against surgical interference; these have been too recently and ably answered by both Drs. Whitall and Ashhurst in their papers already alluded to.

Perhaps, however, some of the more cogent objections against operating in the minds of many are these:

First. That they have known cases of intestinal obstruction existing for very many days to have recovered under medical treatment alone.

Second. That the operation itself may provoke or convert an already local peritonitis into a general and fatal one.

Third. The shock from the operation will be too great for a patient already prostrated to bear up under.

Fourth. That after opening the abdomen we may fail to detect the source of trouble, or if found, to relieve the same, since autopsies in some cases have shown the difficulties to have been such as art could not have removed.

As to the first objection—that cases have recovered which had existed for many days, and when patients seemed to have arrived at the last gasp, is undoubtedly true. But if these comparatively few cases are compared with those many that die in spite of the best medical aid, the ratio of successful cases will, we think, compare most unfavorably with the results that have followed operations. We are informed by the statistics of the late Dr. W. Brinton, that from 12,000 postmortem examinations, taken promiscuously (excluding hernia), that death from intestinal obstruction occurred in one out of 280 cases; and I feel pretty confident that the recoveries following obstructions caused by bands, or from the intestine being strangulated by becoming engaged in an opening in the mesentery or omentum, or from a twist of the bowel—medical means alone being used—*must be extremely* rare.

As to shock. The shock of the operation will no doubt in some instances be great, yet in the three cases operated upon in this country in the persons of negroes who were already greatly prostrated, the shock was but slight, and rapid recovery followed; and even in cases of ovariotomy in persons whose vital powers are greatly depressed, recovery is often the result. If we wait till the vital powers are depressed to their utmost from any cause, what operation, however simple, stands a fair chance of offering relief.

With reference to exciting peritonitis. That we have to encounter this risk is true, but the danger perhaps has been exaggerated, and in the majority of cases of obstruction, I think, if peritonitis exists at all, it will be found local and not general; and this is never a bar against the operation for strangulated hernia, but only prompts us to give speedy relief by the knife.

If the final objection we have mentioned should prevent the operation, it might as well also prevent operations for the relief of hernia, ovarian tumors, or stone.

Even in those cases where the adhesions are multiple and intricate, and where it would evidently be impossible to relieve the same, we do not think that by an explorative operation carefully performed, the condition of the patient could be rendered much worse; and the true nature of the case in this way could alone be determined, and we should have the satisfaction of having given every chance for life.

With regard to the nature of these obstructions we find from Brinton's statistics that out of 600 cases of intestinal obstruction, 31 per cent. were from bands, 43 from intussusception, 17 from stricture, and 8 from torsion. "When we have the history of an old hernia," says Mr. Bryant, in his work on surgery, "the probabilities of the existence of a band are much enhanced, for it is true that with hernia such bands are not uncommon." Such cases are given by Duchaussoy in his paper on intestinal obstruction (Mém. de l'Acad. de Méd., 1860). Fagge gives one in his paper (Guy's Hosp. Reps., 1869), and Mr. Bryant relates three cases in his own practice: one died unrelieved; in the second he opened the hernial sac and enlarged his incision upwards for about two inches, so as to detect a band high up in the abdomen; this was divided with a pair of scissors, and a perfect recovery took place. The third died after the operation, but the band was divided, and a large coil of intestine released. The operation had been put off too long. (Bryant's Surgery, Am. Ed. p. 296.)

Let us examine for a moment the results of this operation of laparotomy, and when we take into consideration the unfavorable circumstances in *very many* instances under which it was done, its success is certainly great. Adelman in 33 cases (including all forms of obstruction) gives 15 recoveries and 18 deaths.

Whitall has tabulated 33 cases, and by a carefully prepared table shows and states "that when the conditions were as favorable for an operation as one could reasonably expect in a disease of such great fatality, *one hundred per cent. were saved; whereas, without such interference, every one of these must unquestionably have died.*" Under favorable conditions he justly classifies "all those cases in which the patient was not greatly exhausted, and in which there existed no serious abdominal obstacle, as extensive peritonitis, gangrene, perforation, insuperable occlusion."

Ashhurst, in a collection of 57 cases for acute intestinal obstruction for other causes than intussusception, operated on under all conditions, gives only 18 recoveries, a mortality of over 68 per cent., but states that, "in cases of strangulation by a fibrous band or divesticulum, or of protrusion of the gut through an aperture in the mesentery, the patient is, humanly speaking, inevitably doomed unless saved by the knife."

In 13 cases where the operation was done for invaginated bowel, there were 5 recoveries and 8 deaths. The only cases in which it has been resorted to during the first year of life have all terminated fatally.

If we look at the number of operations that have been done in our own country, we find that it is still, indeed, in its infancy. I can find reports of but six cases where laparotomy has been resorted to for intestinal obstruction, mine, I believe, being the first case in this city. The cases are as follows: Dr. John R. Wilson, Tennessee, Dec., 1831, for old adhesions (Transylvania Jour. of Med., 1835, p. 486); Dr. J. E. Manlove, July 7, 1844, for strangulation by old adhesions (Bost. Med. and Surgical Jour., vols. 32 and 33, 1845); Dr. Thomas Wood, Dec., 1853, for strangulation persisting after reduction of hernia (Western Lancet, vol. 14, p. 720, 1853); two cases by Prof. Gross, of Philadelphia, for volvulus, reported in Ashhurst's paper, but dates and place of operation not given. The sixth case is my own, given in this paper. The first three occurred in the negro, and were all successful, the last three being fatal.

These statistics, I feel sure, are far more favorable than the majority of the profession imagine who have not carefully studied this subject, and the operation is one which no doubt should be more frequently performed than it has heretofore. That it, like all major operations in surgery, has great obstacles to contend against before it receives its proper high and established position among those that are justly sanctioned by the profession, I am fully aware. But I firmly believe that the day will come when the operation is more frequently and sooner performed, and then our knowledge and experience with this operation will make its results brighter, and from the knowledge which we obtain from our cases and the skill obtained in operating, it, like ovariotomy, will grow more and more in favor with the profession. No surgeon in cases of hernia reduced *en bloc* hesitates to lay open the cavity of the peritoneum, if necessary, and divide the constricting bands. Then why in other cases of grave internal obstruction hesitate to explore the abdominal cavity?

I have alluded to the tapping of the intestine as a means of affording relief in these cases. This operation certainly has neither the risks or the gravity of laparotomy, and it has frequently been done in other cases, and that with impunity, and perhaps in some cases should at first be tried. If there is great tympanites it will certainly afford great relief to the patient, as we have verified in other cases.

Now, if the cause of obstruction be due to the intestine passing under a band, or into an aperture in the mesentery, or if it be due to a twist of the bowel, and the intestine be relieved of its distention by the escape of gas, may we not regard it possible that it will recover itself, and by its vermicular action it may be drawn out of its entanglement, especially if too much time has not been given for it to contract adhesions, and thus bind it in its abnormal situation. This happy result we know has followed such treatment in some cases of hernia.

Though this may be a means given us in the treatment of some of these cases by the advancement of our art, we should not advise long delay after its use, unless the symptoms contra-indicated it, before resorting to an explorative operation.

While thus advocating laparotomy in many of these cases, I do not wish to be understood as spurning medicinal means—far from it. But after these have been fairly and judiciously tried, and relief has not followed in two, three, or four days, all the circumstances of the case, of course, properly being taken into consideration, then I believe that some one of the operations referred to in this paper is peremptorily called for. And in this statement I think I shall be borne out by both the past and future history of these cases and the results furnished by operation.

113 West 44th St.

THE DIFFRACTION SPECTRA OF COLORED FLUIDS.

By HENRY G. PIFFARD, M.D.,

NEW YORK.]

Two years and a half ago I conceived the idea of studying the absorption spectra with the diffraction grating instead of with the prism, and as soon as I was able to obtain the necessary apparatus put it into practice. During the past eighteen months a portion of my leisure time has been occupied in these pursuits. The advantages of the grating over the prism are fourfold. First, the grating gives a normal spectrum; that is, the different rays occupy their natural position in the spectrum according to their wave lengths, while in the prismatic spectrum the rays at the red end are crowded together, and those at the violet end widely separated. Second, with the grating the position of absorption bands can be indicated by the expression of the wave lengths absorbed, a matter determined by an easy calculation, which possesses many advantages over the arbitrary scale employed in prismatic observations. Third, amplification of the spectrum to any desired extent can be readily obtained with the grating, but in prismatic work it can only be effected by changing the eye-piece or prism, or adding additional prisms. For instance, a given spectrum may be brought under examination with double, treble, or quadruple the amplifying power in less than five seconds, without inconvenience, and without altering any of the adjustments of the instrument; the same cannot be accomplished with any prismatic arrangement without much greater loss of time. Fourth, with a grating the ends of spectrum may be reversed; that is, the red may be brought from the right to the left, or vice versa, in another five seconds, without disturbing any fixed adjustment. To accomplish this with prismatic arrangement (except in certain micro-spectroscopes) would involve a half hour or more, and many laboratory spectroscopes (*e.g.*, Desaga's) will not permit this change to be made at all.

Diffraction gratings may be constructed of fine wires placed close together, but not touching and parallel, or of a polished metallic surface upon which fine parallel lines have been ruled with a diamond, or preferably for the subjective study and measurement of the absorption spectra, of a piece of plane parallel glass, from $\frac{1}{16}$ to $\frac{1}{8}$ of an inch in thickness, similarly ruled.* The one which I myself employ is a piece of glass with parallel faces about $\frac{1}{8}$ of an inch thick and $1\frac{1}{2}$ inches square. It is ruled with 4,320 lines to the inch, and at the margin is the name of L. M. Rutherford.

If now the axes of the collimating tube and of the observing telescope be made to coincide, and if the grating is properly placed between the collimating lens and the objective of the telescope, a beam of light passing through the slit will correspond to the centre of the eye-piece, and the observer upon focusing will simply perceive a narrow line of light opposite the cross wires. If the telescope be now turned either to the right or to the left, the bright line is lost, and we find a dark interval, which, upon further movement of the telescope, is succeeded by a spectrum. On further turning this spectrum disappears, another dark space occurs, succeeded by another spectrum, longer but less intense than the first, and so on until several additional spectra have been brought into view. If we return to the starting-point (the narrow line of light), and turn the telescope in the other direction, the same succession of spectra appear, with this difference, that if in the former instance the red end was to our right, it is now to our left.

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* Ranvier (*Journal de l'Anat. Phys.*, 1874) has constructed a diffraction spectroscope from the sartorious of a frog, the transverse striations causing the diffraction.

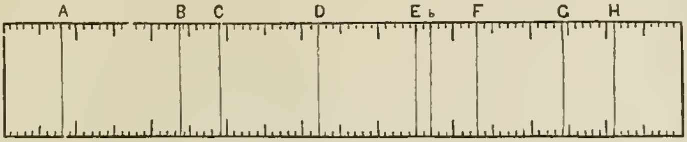

Fig. 1.—Diffraction Spectrum of Solar Light.

The first spectrum which is brought into view after leaving the starting-point is called the spectrum of the *first order*, and it is the one which will be found most generally useful in absorption work; the others are called spectra of the *second*, *third*, etc., *orders*.

Now, if we bring the telescope opposite the first spectrum, and solar light is employed, we will see the Fraunhofer lines occupying the positions shown in Fig. 1.

For comparison I introduce a diagram of the prismatic spectrum, Fig. 2.

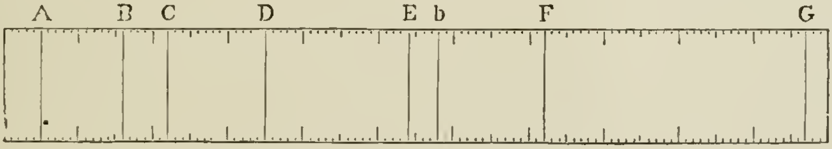

Fig. 2.—Prismatic Spectrum of Solar Light.

It will be observed that the Fraunhofer lines occupy different relative positions in the two diagrams. In the former instance they occupy their normal or proper positions, in the latter abnormal positions due to the irrationality of prismatic dispersion.

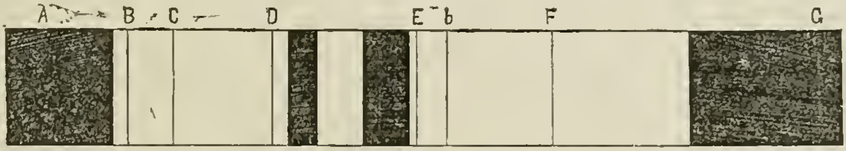

Fig. 3.—Prismatic Spectrum of Oxyhemoglobin.

With the grating the wave-length corresponding to any of these lines can be readily determined by the following formula:

$$\lambda = \delta \times \sin \theta$$

in which λ represents the wave-length sought, expressed in ten-millionths of a millimetre, δ the distance between the ruled lines of the grating, and θ the angle of deviation of the telescope when its cross wires are opposite

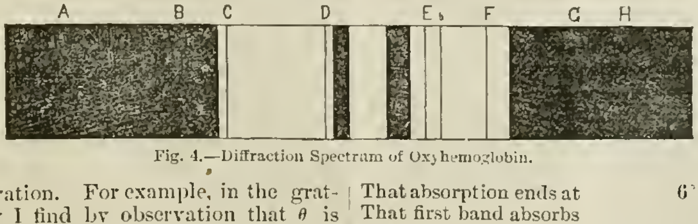

Fig. 4.—Diffraction Spectrum of Oxyhemoglobin.

the line under observation. For example, in the grating which I employ I find by observation that θ is equal to 5° 45′ for the *D* line, $\delta = \frac{1}{43120}$ of an inch or $\frac{1}{5879}$ of a millimetre, which gives us:

$$\lambda = \frac{1}{5879} \times \sin 5^\circ\, 45'.$$

Using logarithms we have:

$$\log. \lambda = \log. \frac{1}{5879} + \log. \sin 5^\circ\, 45'$$

$$\log. \lambda = .769303 + .000816 = .770119,$$

which corresponds to natural number 5890, hence λ. or wave-length of D line, is 5890 ten-millionths of a millimetre.

As the line D, according to Angstrom * and other physicists, includes wave-lengths 5889–5895, the above determination is sufficiently close. θ in the above case is really a few seconds more than 5° 45′, but as the vernier of my instrument does not conveniently read to less than minutes I have assumed the value of θ as given. This error is of no practical consequence in absorption work as we are liable to others of much greater magnitude, from another source (indistinct margins of the bands), whether we work with gratings or prisms.

If we now place a dilute solution of blood before the slit we will have the well-known absorption bands peculiar to that substance, but presenting a somewhat different aspect than when observed with a prism, as will be seen by comparison of diagrams (Figs. 3 and 4).

In the prismatic spectrum of oxyhemoglobin there is a marked difference between the two bands, the band nearer the red being narrower and more intense than the other. In the diffraction spectrum these differences disappear in great measure, and the two bands resemble each other more closely.

If we apply our arc readings and vernier to the diffraction spectrum of oxyhemoglobin we will find, commencing at the red end—

That absorption ends at	6° 30′ ⊂⊃ λ 6655
That first band absorbs from	5° 41′ to 5° 36′ ⊂⊃ λ 5822—λ 5737
That second band absorbs from	5° 23′ to 5° 15′ ⊂⊃ λ 5515—λ 5379
That absorption again commences at	4° 35′ ⊂⊃ λ 4697

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* Spectre Normale du Soleil. 1868. Upsala.

and continues to the end. Of course the limits of the absorption will vary with the strength of solution employed, and the centre of the band must be reckoned as its characteristic position.

Reduced hemoglobin in a somewhat more dilute solution than the one used above gave—

Termination of absorption at red end.....	6° 34′ ≎	λ 6757
Band..................	5° 33′ to 5° 14′ ≎	λ 5686—5362
Commencement of absorption at blue end	4° 56′ ≎	λ 4544

I have here given a brief account of the diffraction grating, and of the method of using it as applied to the study of the absorption spectra, and in conclusion would advocate its use on the grounds that it gives a normal instead of a distorted spectrum, and affords a means of recording spectra which will enable the work of one observer to be accurately compared with that of another. There is, however, one disadvantage connected with the glass grating; we must employ a much more intense light than is necessary with the prism. I am in the habit of using for this work direct sunlight (sometimes condensed), reflected into the slit from a heliostat. At night I use a magnesia pencil rendered incandescent with the oxyhydrogen blowpipe. For the magnesia pencil I am indebted to my friend, Prof. J. W. S. Arnold.

If desired, a small grating can be applied to the microscope, the upper part of the tube having a movable joint, and being provided with an arc of say 15° or 20°, with vernier. The necessary calculations for turning the observed angle into wave-lengths is exceedingly simple, one minute being a liberal allowance of time for each calculation. Unfortunately, good gratings are not yet a commercial article, and all American and most foreign observers who possess them are indebted to the liberality and kindness of Mr. Lewis M. Rutherford, to whom I take this occasion of acknowledging my obligations.

The grating is daily coming into greater prominence in connection with solar, stellar, and emission spectra, and as Prof. John W. Draper said twenty years ago, is the spectroscope of the future, and it is in the hope that those engaged in absorption work will be induced to abandon prismatic and adopt diffraction observation that these few lines have been written.

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A CASE OF HIRSUTIES GESTATIONIS.

By CHAS. E. SLOCUM, M.D.,

DEFIANCE, OHIO.

The following case is so curious and rare that I furnish it for publication:

Mrs. R. has borne three children at full term, and suffered one abortion at six or eight weeks.

A peculiarity that has attended each gestation is the growth of beard on the sides of the face and under the chin. This hairy growth has uniformly started at the commencement of pregnancy, or become perceptible soon after the cessation of the menses, and continued until childbirth, and the uterus has assumed its antefecundated status.

Her attention is first called to the parts soon to be covered with hair by a sense of heat and itching, which is allayed but a short time by rubbing, and which continues about three months, with more or less annoyance, and then subsides to return again after accouchment and remain until the falling of the hair.

The hair is thick-set, fine and soft in texture, straight, and lighter in color than the hair of the head. Its length at childbirth is one to one and a half inches, when its growth apparently stops, and after a period of time varying from four to six months (first child six months, second and third children four to five months), or about the time when the uterine system resumes its catamenial function, it falls, and the face assumes its normal smoothness.

This hirsute condition during gestation is the only peculiarity in this lady's history. She has uniformly enjoyed health. The menstrual flux was established when she was between thirteen and fourteen years of age, appeared regularly, and was attended with no peculiarity From the age of fifteen to the time of her marriage, two years later, she suffered slightly from dysmenorrhœa, but not since marriage.

July 27, 1871, she gave birth to her first child, it being about one year after marriage; November 11, 1872, after one year, three and a half months, to the second; January 12, 1874, she suffered an abortion at one and a half or two months, experiencing but little trouble therewith, and November 13, 1874, ten months thereafter, her third child was born, apparently at full term, as it certainly was in full vigor.

At the time of her abortion the growth of hair on the face was very noticeable, and she became so soon again pregnant that the growth continued until the second conception was completed.

There has been nothing peculiar in the appearance of her children.

Mrs. R. is of medium height and size, with dark-brown hair, hazel eyes, and a fair skin, which becomes of a darker hue when she is in the pregnant state. There was but little nausea following conception, and she was vigorous and able to attend to her household duties at all times. No change or peculiarity other than that already noticed occurs.

This case, which must be classed as so rare as to be exceptional, is but another confirmation of what has long since become an axiom in obstetrics, that, "associated with the pregnant state, and dependent upon its continuance, are numerous manifestations which have their seat in organs so remote that it is difficult, in many cases, to trace the sympathy which exists between them and the special organs of generation.

"There is, in point of fact, no single function of the whole economy which may not be affected by the operation of a cause which has its centre in the generative organs, and which radiates thence throughout the entire system. Consequently, phenomena are frequently observed in distant organs, which are certainly not associated in function with the womb."

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Comparative Statistics of the United Kingdom.—A report has just been published, derived from the joint reports of the Registrar-General for England and the Registrar-General for Ireland, in which some remarkable comparisons appear. This is for the year 1872, at which time the population of England was 23,067,385 souls, and that of Ireland 5,368,696. In education Scotland ranks first and Ireland last. Illegitimacy is most prevalent in Scotland, less so in England, and least of all in Ireland. Of all the children born in Ireland only 2.5 per cent. were illegitimate.

In England the proportion of the deaths of males under five years of age was 41.49 per cent. In Ireland it was only 26.82 per cent. Out of 255,135 deaths of males in England, there were 195 of persons registered as being ninety-five years old and upward. In Ireland the total number of deaths was 48,091, but of these no less than 368 were returned as of persons over ninety-five years of age. There were seventy-five in England who had attained the age of one hundred, but in Ireland the number was 303. Lastly, in England there were 1,514 suicides, while in Ireland there were only 102.

Progress of Medical Science.

Treatment of Tubal Pregnancy.—In the *New York Medical Journal* of last month Dr. T. G. Thomas reported an extremely interesting operation which he had performed successfully for tubal pregnancy, some months before. The plan of the operation was designed particularly to avoid the three great dangers —hemorrhage, peritonitis, and septicæmia—which have generally destroyed the success of all the operative means which heretofore have been employed to remedy this abnormal condition. The operations which have usually been practised are gastrotomy, in which the contents of the fœtal sac are removed like an ovarian tumor; paracentesis, with evacuation of the fluid contents, in order to diminish the painful tension and arrest the growth of the fœtus; and finally, destruction of the fœtus by means of the passage of strong currents of electricity through the sac, or the injection into it of narcotic substances, etc. This last-named method usually results in the production of an abscess, after which the patient must rely on the chances of a spontaneous recovery. As stated by Thomas, the chief dangers of the first of these operations are peritonitis (which is involved in the necessity of cutting through the peritoneum) and hemorrhage. In the other two the dangers most imminent are secondary hemorrhage into the sac, septicæmia, and peritonitis. The following is Thomas's method of procedure: First, he avoids the peritoneum by opening the sac per vaginam. The opening is made with a knife, rendered incandescent by a strong current of electricity passing through the blade. By this means it was hoped to prevent hemorrhage from the vascular tissues by which the sac of an extra-uterine pregnancy is invested. To avert the danger of septicæmia the operation includes the removal of the entire fœtal mass, and free drainage is afterwards maintained by the insertion of a tube of glass or silver, through which disinfectant injections may be made. The case in which this plan of operation was successfully applied was a tubal pregnancy of the left side, at about the end of the third month of its development. The patient was placed in the left lateral position, and Sims's speculum was introduced. The portion of the vagina lying directly beneath the sac was then made tense by two tenacula, one caught in the cervix uteri and the other in the vagina, on the left side. The platinum knife of the galvano-caustic battery having been raised to a white heat, was passed back and forth between the two tenacula until the sac was freely opened. Two fingers were then passed in through the aperture, and the operation of podalic version was performed, the fœtus lying transversely. The body was readily delivered, but the forceps were applied to extract the head. Up to this point the plan, as at first proposed, had been followed precisely. The attempt to remove the placenta, however, was attended with such serious hemorrhage (forcible measures being precluded on account of the possibility of injuring the peritoneum) that a portion of the placenta was allowed to remain. T. had previously apprehended some difficulty here, for the reason that we have no definite knowledge of the mode in which the placenta is attached in tubal pregnancy. It was necessary to inject the sac with a solution of the persulphate of iron, which, while it controlled the hemorrhage, interfered with the perfect drainage which it was desired to establish. Instead of the drainage tube a tent of cotton, saturated with carbolic acid and the persulphate of iron, was introduced and left in the sac. On the fourth day the tent was withdrawn, when symptoms of septicæmia developed but soon disappeared again under the use of carbolized injections. On the seventh day there was a slight hemorrhage, which was easily controlled; in another week the remaining portion of the placenta came away spontaneously, and thereupon the patient made a rapid and complete recovery. A slight abscess occurred in the arm, due to an embolus of an unimportant blood-vessel, and there were some incipient indications of phlegmasia dolens, which soon disappeared. Six weeks after the operation the opening made in the vagina had so completely closed that scarcely a trace of it remained.

Incidentally Thomas makes some suggestions concerning the pathology and the diagnosis of extra-uterine pregnancy. Thus he expresses the opinion that, while it is not yet a proposition susceptible of actual demonstration, "in the commencement of its development the impregnated ovum never attaches itself to or draws its nourishment from any other parts than those lined by the mucous membrane of the uterus or tubes." When the main attachment of the fœtal sac is with a serous membrane or other non-mucous tissue, the relation is a secondary one.

Among the signs of extra-uterine pregnancy especial value is ascribed to that of ballottement. T. has seen four cases out of nine in the last seven years in which he was enabled to make a positive diagnosis by ascertaining the following conditions: (*a*) The existence of the gastric, mammary, and pelvic symptoms of pregnancy; (*b*) a uterus smaller than should exist at the supposed period of gestation; (*c*) a sensitive tumor to one side of or behind the uterus; and (*d*) pains extending from the pelvis down one thigh. In three of the four cases the sign of ballottement was very distinct.

Typhoid Fever at Lewes, England.—In the Report on Public Health, by Dr. J. W. Moore, it is stated that in Lewes, Sussex County, an outbreak of typhoid fever occurred in July and August, 1874. In the fortnight ending October 24th there were 197 fresh cases, after which the epidemic subsided. Altogether there were about 450 cases and 27 deaths, in a population of 11,000. So serious was the disease that the Assizes for Sussex were held at Brighton, and not at Lewes, the County town. Dr. Thorne was deputed to inquire into the causes of the epidemic, and he reports that the outbreak was distinctly traced to the water supply. It was found that among those citizens who were supplied with water from the public works, there were about five times more cases of fever than among those who were supplied from private wells. The pollution occurred in the following manner: Many water-closets were supplied directly from the mains, the water being admitted to the pans by simply turning a tap. These taps were constantly left *open*, so that when the water supply happened to be cut off, foul air was often sucked through them into the mains. It also appeared, from the inquiry, that the town water had been polluted by the accidental admission of foul tidal water into the water-works, in July—a circumstance which would explain the earliest cases in the epidemic. The direct service-pipes spoken of above existed in houses where the first cases of the fever occurred. The open pipe communicating with the mains passed into closet-pans containing the evacuations of typhoid fever patients, so that it was almost impossible that particles of the diseased evacuations could escape being drawn into the mains.—*Irish Hospital Gazette*, May 15, 1875.

Post-mortem Examination of a Case where Inflammable Gas was Discharged from the Stomach.—Dr. Ewald writes from Berlin, giving an account of the autopsy in the above case (see *Irish Hospital Gazette*, Vol. II., p. 254). The stomach was found but little distended, the pyloric orifice was imbedded in a hard tumor about the size of a walnut, and its calibre reduced to that of a crow-quill. The mucous coat of the stomach was pale and anæmic, and became gradually lost in the substance of the tumor. The serous coat of the stomach was everywhere thickened, especially about the pylorus. The tumor, on microscopic examination, proved to be a fibro-myoma. The glands of the stomach, except in the immediate neighborhood of the cardiac extremity, had completely disappeared, and the whole thickness of the mucous membrane was occupied by innumerable small, round cells, which had completely destroyed the regularly arranged stomachic glands, and but few such, widely scattered, could be found, in which no ordinary epithelium could be discovered.

Dr. E. says that the nature of the tumor explains the absence of any symptoms which, during life, are looked upon as indicating malignant disease, but that the presence of carburetted hydrogen in the eructations is still as great a mystery as ever. He says that though Kunkel has recently shown that during the pancreatic digestion a gas is evolved composed of carbonic acid gas, hydrogen, and carburetted hydrogen, and admitting that some of this gas might regurgitate through the pylorus into the stomach in a normal state of the opening, he thinks that the small size of the pylorus in this case is strongly against this view of its origin. —*Irish Hospital Gazette*, May 15, 1875.

Treatment of Nasal Lupus by Excision.—Mr. John Gay recently read a paper on the above subject before the Royal Medical and Chirurgical Society, and stated that he believed lupus exedens was a topically malignant form of ulceration, and that the alleged cures of this affection by constitutional treatment were probably based either on errors of diagnosis, or on the inclusion under the generic term "lupus," of forms of disease with which, typically, it has no natural affinity or alliance. In discussing the differential diagnosis between lupus, epithelioma, and rodent ulcer, and the comparative values of treatment by caustics and excision in nasal lupus, he says that in using caustics, cicatrization, or an advance towards it, must be waited for before any plastic operation can be attempted to relieve the deformity, which is one of the most important objects in the treatment of cases of this kind. In the treatment by excision a plastic operation can be performed at the same sitting, and thus tissue may be saved, the loss of which would be unavoidable in the use of caustic. He relates three cases which he had treated in this way. In the discussion which followed, the galvanic cautery and the use of the solid stick of nitrate of silver were mentioned, but Mr. Gay, in reply, said that he merely wished to draw attention to the economy of tissue in the use of the knife, where plastic operations were necessary for relief of deformity.—*The Lancet*, May 29, 1875.

Heubner on Syphilitic Disease of Cerebral Vessels.—Dr. Obersteiner has brought forward the following views of Prof. Heubner, as set forth in a recent monograph. According to this author, the arteries most frequently affected are the basilar, and those slightly smaller than it, such as the artery of the Sylvian fissure. Such vessels are said to have the following constituent elements. Internally there is an endothelial lining, next to it externally comes a tortuous membrane, the membrana fenestrata, then the layer of circular muscular fibres, and lastly the adventitia. The entire diseased process under consideration goes on between the endothelium and the membrana fenestrata. The first step in the change consists in the development, in the intermediate space, of cells which soon are seen to be spindle-shaped. These cells are presumed to be derivatives of the endothelium cells. Afterwards white blood-corpuscles make their way into the new tissue. This new formation now enlarges, and pushing the endothelium before it, soon diminishes the calibre of the vessel; the subsequent changes in it are such that ultimately a new coat is formed consisting now of three strata, but still occupying the space between the endothelium and the fenestrated membrane. This new coat may become organized or undergo various forms of degeneration.

Heubner believes that the results of injections of the brain have shown him that two vascular circuits must be distinguished, the difference consisting in the different modes by which the arterial trunks give off branches. There is the basilar circuit, comprising the principal branches distributed to the white substance at the base of the brain, and the cortical circuit beginning where these pass to the cortical substance, or rather to the pia mater. In the former, the small twigs leave the main branches at right angles and pass directly, without anastomosis, to the special tracts which they supply, thus constituting *terminal arteries* in Cohnheim's sense; while in the cortical circuit, the arteries divide into a fine network with numerous anastomoses, from which arise the vessels supplying the cortical substance.

If, therefore, one of these larger arteries is diseased as described above, and its calibre is obstructed so as to interfere with the blood-supply to the cortical part, this fact will be evidenced by attacks of unconsciousness, faintness, etc., symptoms which are due to the oscillations in the blood-pressure, but which will gradually be relieved when the equilibrium is restored by the collateral circulations, even if a large vessel remain obstructed. If, however, the stream of blood is interrupted in the other circuit, which has the terminal arteries, there will be infarction or softening, and, as the motor tracts are situated there, hemiplegias may be expected.—*Rundschau*, April 12, 1875.

Electrolysis in Nævi.—Mr. Knott, Medical Superintendent of Galvanism to St. Mary's Hospital, London, has reported forty cases of nævi successfully treated by the above method. He uses Stöhrer's and Meyer and Meltzer's continuous batteries, and judges according to the size of the nævus how many cells to use; six or eight is about the average if the battery be in good order.

He says that if the nævus be small, he uses one or two needles attached to the negative pole, and one to the positive, and passes them into the tumor; but if it be large he puts on several needles in the negative cord, and uses a charcoal point with the positive. After the needles have been in the tumor a short time decomposition begins to take place; this is shown by bubbles of gas passing by the side of the needles. A clot is then formed, the tumor turns of a bluish white, and in this clot fibrous degeneration takes place, and an ultimate cure is the result. The advantages of the galvanism are its certainty of action, its safety, the faintness of the cicatrix, and the cessation of pain directly the operation is over. He has used every other method, and thinks this by far the best.—*The Lancet*, March 20, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

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THE ORIGIN OF PUERPERAL FEVER.

The questions involving the nature and causes of the fevers associated with childbed have always been matters of great interest and importance to practitioners, but they are now receiving increased attention, from the fact that these diseases have of late years been remarkably prevalent, and also because there has been shown a tendency to connect their spread with personal contact on the part of the attendant. The serious consequences which the propagation of the latter opinion may at any time bring upon the most deserving practitioner have become so apparent that the Obstetrical Society of London has undertaken to institute inquiries on these and other points, and the results they have thus far reached give promise that some of them will be answered definitively.

When the debate was opened by Spencer Wells, he submitted the subjoined six propositions, which were designed to cover the main points of inquiry, and which he hoped would elicit the required facts. His hopes seem to have been partially realized, and many of the ablest obstetricians in Great Britain have come forward and expressed their views, while data of hardly less value have been supplied through the journals from the individual experience of many general practitioners. The propositions are as follows:

1. Is there any form of continued fever, communicated by contagion or infection, and occurring in connection with childbirth, which is distinctly caused by a special morbid poison, and as definite in its progress and the local lesions associated with it as typhus or typhoid, scarlet fever, measles or small-pox?

2. May all forms of puerperal fever be referred to attacks of some infective continued fever—as scarlet fever or measles—occurring in connection with childbirth on the one hand; or, on the other, to some form of surgical fever, or to erysipelas, caused by or associated with changes in the uterus and neighboring parts, following the process of childbirth?

3. If all cases of contagious and infective diseases which occur under other conditions than that of childbirth are set aside, does there remain any such disease as puerperal fever?

4. Assuming that a form of continued fever, communicated by inoculation, contagion, or infection, does frequently occur in connection with childbirth, how can its spread in private or in hospital practice be most certainly prevented or checked?

5. What relation have bacteria and allied organic forms to the pyæmic process in the puerperal state?

6. What is the value of antiseptics in the prevention and curative treatment of puerperal fever?

We publish these queries to give a still wider circulation to them in the hope that they will attract special attention in this country and elicit further facts. The recent conviction of a midwife, in England, of manslaughter, has shown that the matter is of the very first importance. The midwife was convicted on the ground that she had induced the disease among some of her patients by conveying it on her person from those infected, thus disseminating it.

If the midwife was justly condemned, it was upon the assumption that the disease in question was positively conveyed by her. The same reasoning might, however, apply in the case of any medical practitioner in whose practice a case of puerperal fever broke out.

That the disease, however, does not always so originate seems to be evident from the citation of cases which the discussion has evoked, for it has been shown that puerperal fevers, or diseases which pass by that name, can originate where there has been no contact of the woman in confinement, either with the person of the accoucheur, his clothes, or instruments, and, in fact, where no attendant has been present.

We have it also on the best authority, from a personal inspection of the records in this city, that puerperal fever, which is so apt to be ascribed to that mysterious something which has been called *hospitalism*, is actually more common in private practice than in hospitals.

In our large cities and towns, however, it is extremely difficult to divest any disease of all the possible factors that may be regarded as sufficient to produce it. We have often the presence of various epidemic diseases, such as typhoid, typhus, scarlet fever, and the like, which with some would be regarded as sufficient to call out puerperal fever in a parturient woman. Then there is the presence or personal contact of the attendant, while in other cases, we have want of cleanliness, bad ventilation, or neglect of sanitary attention to the premises. In other cases, the patient herself may not have received the proper topical applications to the injured parts. These and other causes would be thought by some sufficient to induce the disease.

In country practice we are far less apt to have such a combination of possible factors, for the country practitioner is apt to be called to see cases where there is a total absence of many of the conditions just mentioned, and he may therefore have an opportunity of narrowing down the probable cause to a comparatively small number of possibilities. To him, therefore, we shall have to look for assistance in securing evidence upon these points, and from a large number of such data we shall probably succeed finally in finding the actual cause or causes. The value of determining these questions can hardly be overestimated, for in the event of suits at law, ignorant or malicious men are now in danger of causing serious damage to the practice or reputation of any medical man who is unfortunate enough to have a puerperal fever break out in a patient under his care.

HOMŒOPATHY IN MICHIGAN UNIVERSITY.

THE establishment of a homœopathic college as a branch or department of the University of Michigan will, we doubt not, be a source of considerable embarrassment to the present medical faculty of this excellent school. An attempt is being made on the part of the Regents to appoint one or two homœopathic professors, ostensibly to take charge of the new department, but in reality to become by law members of the faculty. This will certainly be an original method of forcing disagreeable and unprofitable associations, which will be resisted by every one interested in the prosperity of the school.

There is only one course for the Regents, and that is the establishment of an independent homœopathic school.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 12, 1875.

DR. F. DELAFIELD in the Chair.

MULTIPLE ABSCESS OF THE LUNGS, FOLLOWING CASEOUS OSTITIS OF THE HEAD OF LEFT THIGH-BONE.

DR. GIBNEY presented the remnant of the head of a femur which has been the seat of a caseous ostitis, and of itself presents nothing specially interesting. The history of the case, however, with the complications attendant thereon, will, I hope, bring before the Society the following important points:—

1. The etiology of morbus coxarius.
2. The metastasis of strumous disease.
3. The connection between caseous abscess and the development of tubercle.

Without any extended remarks on the views of well-known pathologists, I shall briefly recite the history as obtained from the mother (a woman of moderate intelligence), and the observations hastily made at the necropsy.

The patient, a male, seven years of age, living in Harlem at the time I was called to visit him, April 15 of present year. He was lying with both thighs flexed on body, left leg flexed on thigh, right leg semi-flexed. The accommodations of the sick chamber and the excessive peevishness of the boy made a thorough examination impracticable. Superficially, I observed a well-marked hippocratic countenance, a head unusually large, and of the "Bombay" type; a respiration of 30 to the minute; small, frequent pulse; a body greatly emaciated over the bony structures, while the abdomen was moderately distended by an enlarged liver; both lower extremities œdematous—the right easily extended, while the left could not be extended beyond an angle of 135°; motion at right hip perfect, at left limited by an *apparent* contracture of the adductors and flexors. A tumor, extending from the troch. major to the internal condyle of the femur, attracted especial attention. The integumental covering seemed intact, and no distinct fluctuation could be perceived. The right ankle was studded with several openings, some of which presented ulcerated borders.

The little fellow's history ran somewhat as follows: The second of three children, all of whom were in a state of health far below the normal standard. Father died at age of 36, of phthisis pulmonum, following, six months distant, a form of insanity, for which he was confined in the Flatbush Asylum. Both the insanity and phthisis, it is fair to say, developed two years subsequent to the birth of this child. A paternal aunt died of phthisis. The mother has been choreic from girlhood. Maternal grandfather died in the Insane Asylum, Blackwell's Island. A maternal aunt is at present insane.

With the exception of a slight herpetic eruption about nasal orifice, the child was considered healthy up to the third summer, when a colliquative diarrhœa set in, and "consumption of the bowels" was the diagnosis stated to the mother. For months following this a peculiar awkwardness in the gait was noticed. Finally, recovered completely, and during the summer of 1872—then four years old—fell from a railing, and on the *next day* complained of a pain in the left knee. This pain soon subsided, and nothing save a slight limp on extra exertion was observed for the next six months. Then the "starting pains," gradual change in position of limb, and tenderness, induced the mother to consult a physician. From that time to April of the present year various physicians treated the case. Two or three blisters were applied with no relief. Deformity increased. Abscess formed within five months after the first medical interference. In March, 1874, the right ankle suddenly took on severe inflammation. Abscess speedily formed, and opened spontaneously. All active symptoms at the hip subsided, and the cold abscess remained in *statu quo.* Shortly after the invasion of the ankle lesion scarlatina supervened, and was followed by œdema of lower extremities. Chorea followed in the wake of the scarlatina. This terminated in a few weeks.

After I saw the case I examined the urine frequently, and found no albumen and no cast—only a low specific gravity. Tonics and stimulants were used freely with no effect. Death by asthenia May 5th.

At the necropsy, twelve hours afterward, I was assisted by Dr. T. H. Skinner, and we were limited to the thorax and abdomen, and the hip.

Extensive adhesions of pleura on right side—few on left. Abscess near apex of right lung, 1 inch in diameter. Several smaller ones throughout, some cheesy, some containing pus. At the base of left lung was an abscess 2 inches in diameter. Liver about one-fourth larger than normal. No caseous patches found on section. Kidneys normal in size; markings perfect.

On opening tumor on thigh, a large quantity of caseous material was removed—no fluid whatever.

Sac 10 inches long by five wide—traced to posterior surface of capsular ligament, which was perforated at that point, otherwise intact. Acetabulum roughened, not perforated. Shaft of bone unaffected. A small portion of head removed. Right ankle not examined. . . . . .

The hereditary dispositions and the character of the inflammatory processes point towards a strumous origin. The history of the fall is in close connection with the invasion. The pulmonary lesion seems unquestionably to have followed the formation of the cold abscess on thigh.

Two joints were actively inflamed at successive periods. I have given the facts, and my regret is that the autopsy could not have been made with more care, and on retrospection I find many interesting points which I might have observed with profit. As far as treatment was concerned the result speaks for itself.

TUMOR OF ANTRUM.

Dr. A. C. Post presented a tumor of the antrum, removed, a number of months ago, from a man aged forty-five years. The mass was of slow growth, first making its appearance about ten years ago. The patient's general health was good, and the tumor had the feeling of a soft mass enclosed in a thin bony shell. The operation was performed in the usual manner. The roof of the orbit was not involved in the disease. The tumor was examined microscopically by Dr. Satterthwaite, and proved to be sarcomatous in character.

Dr. Delafield remarked that there was some law concerning the recurrence of tumors of the antrum which was not explained by their microscopical character. For instance, the sarcomata would present precisely the same microscopical elements, the same anotomical relations to each other, and yet in one the growth would reappear in a short time, and in another there would not be a recurrence for years.

Dr. Mason remarked that he had, four years ago, presented a specimen of myeloid tumor of the superior maxilla, involving the orbit, but in which there had been no return of the disease up to this time.

Dr. Satterthwaite referred to a tumor of the lower jaw which he had presented three years before. The disease was a sarcoma, and was surrounded, as in Dr. Post's case, with a thin shell. For two years the patient had no return of the disease.

CHRONIC ALCOHOLISM.

Dr. Jacobi presented a heart removed from a female patient of Bellevue Hospital, who entered that institution a number of weeks ago with the symptoms of chronic bronchitis, emphysema, and an attendant cyanosis, and who died about six or eight days afterwards. During her stay in the hospital she was relieved for a time of her more urgent symptoms, the dyspnœa and cyanosis disappearing until just before her death. She had been a hard drinker, her favorite beverage being Holland gin, to which she ascribed many remarkable curative properties. At the autopsy her lungs were found in a state of chronic bronchitis, pulmonary infiltration, and emphysema; at the same time there was cirrhosis of the liver.

The heart, contrary to expectation, was not enlarged, but in the condition of fatty degeneration due to the chronic alcoholism with which she was affected. The point of interest centred in this condition of the heart connected with the urgent dyspnœa and cyanosis, which were prominent symptoms in her case.

Dr. Jacobi also exhibited a specimen of cysticercus of the liver which was removed from a patient of Bellevue, of whose history he was at the time of presentation ignorant. The cyst was situated in the substance of the organ, and was evidently at a standstill, its contents being very much thickened and the cyst-wall having undergone cretaceous degeneration. The fluid contents contained an immense amount of cholesterine and some hooks of the echinococcus.

PSEUDO-ENCEPHALUS.

Dr. Jacobi lastly presented a specimen of pseudo-encephalus, for which he was indebted to Dr. Samuel B. Ward. The specimen was a fœtus which had evidently been expelled during the seventh month of utero-gestation. There was an entire absence of the cranial bones, except the arches of the frontal and temporal bones. In place of the brain there existed a mass divided by a groove, which marked the location of the falx, in the cavity of which were a few layers of brain-tissue. The mass itself consisted of immensely dilated blood-vessels, surrounded by a large amount of new tissue, and also by a tissue which might be taken for dura mater. The spinal canal was entirely open, and contained nothing but connective tissue. Dr. Jacobi was of the opinion that the anomaly was caused by an inflammation of the brain and spinal cord, which had taken place at an early period of utero-gestation, and which, by the attendant effusion, not only interfered with the development of the cerebro-spinal system, but prevented the development and closing of the cerebro-spinal arches. The spinal nerves were found intact, thus proving the statement of Sayre, a French embryologist, that the development and growth of the nerves have nothing to do with their respective nerve-centres.

INTESTINAL OBSTRUCTION—LAPAROTOMY.

Dr. Erskine Mason presented a specimen of intestinal obstruction, for the relief of which he had performed an operation (*vide* page 465).

Dr. Loomis remarked that this was the third case he had seen in which at the autopsy the obstructions had been found in the small intestine. From what he had seen of the other cases, he was of the opinion that peritonitis existed at the time the consultation was held, and that any operation for the relief of the patient would be useless.

Dr. Mason remarked that had the band which extended from the Fallopian tube to the ileum been detected, it could have been divided without injury. The real difficulty was in the adhesion of the adjoining portions of the intestine, which made it impossible to straighten out the same.

Dr. Jacobi remarked that most of our reasoning in these cases must be theoretical. This being the case, he believed it would be safer and better to remove the intestine from underneath the constricting band, rather than run any risk of exciting peritonitis by tearing or cutting these constrictions.

Dr. Mason stated that in his case, on account of adhesions of different portions of the gut, such a procedure was impossible.

Dr. Post did not see why the bands in question could not be divided with as much safety in these cases as in those of strangulated hernia. The difficulty, however, would be in diagnosticating their precise situation and extent.

Dr. Jacobi believed that a diagnosis could generally be made with some degree of certainty in ordinary cases. When there is vomiting very soon after anything is swallowed, and this vomiting is not stercoraceous. the obstruction is apt to be high up—in the small intestines. Such a diagnosis can be further confirmed by the occurrence of numerous passages after an obstruction is supposed to exist.

Dr. Loomis, in this connection, remarked that almost all the old adhesions were to be found in the small intestines.

Dr. Mason stated that fully 95 per cent. of the cases were in that category.

THE RELATIONS OF ERYSIPELAS AND PERITONITIS.

Dr. Lewis Smith presented a specimen removed from the body of an infant, which died at the age of seven weeks. It had been an inmate of an infant asylum of this city, and was wet-nursed by a woman who was attacked with erysipelas. The child, previous to this occurrence, did well, but soon after had a profuse discharge from the bowels with vomiting, and died within three days afterwards.

On post-mortem examination the thoracic organs were entirely healthy. On opening the peritoneal cavity about half an ounce of rather thin, curd-like liquid escaped. About the same quantity of thin, purulent-looking fluid remained in the pelvic cavity. The peritoneum throughout a considerable portion of its extent was congested, and there was fibrinous exudation over the liver and the spleen. The points of interest in this case had reference to the practicability of allowing a child to nurse a mother when affected with the disease in question, and also in establishing the relation of the peritonitis of the child to the erysipelas of the nurse.

IDIOPATHIC ENDOCARDITIS.

Dr. Delafield exhibited specimens taken from a young man, aged twenty years, who was admitted to Roosevelt Hospital, three days before his death, in a very feeble, emaciated condition. So far as could be learned, he had been half starved, and a good deal of his condition was apparently due to that fact. He was, however, able to state that two years before he had been attacked with severe headache, accompanied and followed by delirium; that this attack was so severe that he was confined to his bed for two weeks. He recovered from this, but he had a number of similar ones during the succeeding two years. At one time he was under treatment in the hospital for perineal abscess. Dr. Delafield did not see the patient during life, and was not aware that any diagnosis had been made.

At the autopsy the heart presented an unusual good example of acute endocarditis affecting all the valves; also a small amount of acute pericarditis. There were old and recent infarctions in the spleen and in one kidney. In the middle cerebral artery was an embolism, apparently proceeding from the heart. There was no brain softening accompanying this condition. On the same side of the brain—the lateral surface of the left anterior lobe—the dura mater was very considerably thickened. The brain beneath is depressed and softened, and the cortical matter in that position is atrophied. On removing the dura mater from the brain there were slight recent adhesions over the entire surface.

The question concerning the probability that a gonorrheal rheumatism might have had something to do with the brain lesions, came up, but Dr. Mason, who had charge of the case at the time of the perineal abscess, stated that when he left the hospital he had no symptoms of the complication in question.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 17, 1875.

Dr. S. S. Purple, President, in the Chair.

SUCCESSFUL TREATMENT OF CICATRICIAL CONTRACTION FOLLOWING BURNS.

Dr. Gurdon Buck presented a case of this character in a lad seven years of age who was admitted to the Presbyterian Hospital in March, 1874. When two years old he received a severe burn, which left an extensive contraction, involving the right axilla and arm. When the arm was elevated to the horizontal position—the limit of elevation—a fan-shaped fold of skin was brought into view, occupying the axilla and extending from the ninth rib to the elbow. When it joined the arm, near the elbow, it was prolonged over the forearm to the wrist in the form of a thickened cicatricial ridge. The fan-shaped fold corresponded to the anterior fold of the axilla, while the posterior fold of the axilla exceeded but little its normal dimensions, and between that and the anterior fold. stretching high up into the axilla, was a deep recess. The elbow and shoulder joints did not suffer, and were only restricted in their motions by the contractions of the integument. The first operation was performed a few days after his admission to the hospital, and consisted of transfixing the fold, high up towards the shoulder, and severing it from its connection with the arm along the line of junction. This at once set free the arm, and the separated fold receded and spread out over the thorax. The farther step of the operation consisted in excising the portion of cicatricial tissue extending down to the wrist, and wherever any resistance was offered to complete extension of the arm and forearm, the edges of the constricting bands were divided until sound tissue was encountered. In this way a complete liberation of the limb was procured. At certain points the edges of the wound were stitched, not with the view of obtaining adhesions, but rather to keep the parts in shape and place, and the extensive raw surface now exposed was covered with the following dressing: First cover the surface with a layer of soft scraped lint, and over that place layers of ordinary sheet lint, applied in broad stripes, saturated with collodion. Shingle the surface in with these strips, allowing their ends to go well over upon the surrounding parts. This dressing hardens very quickly, and forms an artificial scab. It has been uniformly observed that only very little swelling and redness follow this dressing in the neighborhood of the wound, and the artificial scab remains adherent from six to ten days. In the meantime at one or more points there will be an escape of fluid at the margin of the dressing, not precisely of the character of pus, by means of which it is gradually detached, and is then removed. When removed it will be found that suppuration has been retarded, and the raw surface has become covered with healthy granulations, usually filling it up to a level with the surrounding skin. One great advantage of this dressing is, that it affords rest for the wound for the first few days, and so much is added to the comfort of the patient and the convenience of the surgeon.

The next point in the treatment of the case consisted in maintaining the limb in the new position. This is an essential part in the management of these cases, namely, maintaining the limb constantly in the restored position in which it is aimed to place it. This is effected, according to the part involved, by such apparatus as is best adapted to afford the greatest possible degree of comfort to the patient, and yet fulfil the indication mentioned.

In the progress of healing it will be necessary to repress the exuberant granulation growth, and that is most effectually done by applying, perhaps, at the end of two weeks, adhesive plasters an inch or more in width, in immediate contact with the raw surface, and extending beyond the wound a sufficient distance to sustain the pressure desired. There is no more efficient method of maintaining a smooth condition of the granulating surface, and with this it may also be necessary to make use of caustics. In using caustics, nitrate of silver being specially referred to, he had found it necessary to do more than simply pass the stick over the surface of the granulations, and has found the growth best repressed by spading or boring the point into the surface at places in close proximity with each other. Occasionally solid caustic potash may be necessary, and if used great care must be taken in surrounding the wound with some absorbing substance for the protection of the unaffected tissues.

The gain affected by the first operation was considerable; in the summer following all support was removed from the arm, and certain gymnastics were practised which had a tendency to straighten the limb. In December following a second operation was performed, mainly of the same character as the first. All cicatricial contractions were again divided, and, in addition, incisions were made at a little distance from and parallel with the edges of the wound, which were also left to heal by granulation. Treatment was the same as after the first operation.

The third operation was performed about one year from the time of performing the first, and was trifling as compared with those which preceded it. The tendency to relapse is very persistent in these cases, and requires to be resisted for a very long time. The boy can now flex, and extend, and otherwise handle the limb as well as the sound one. To assist in holding the axillary fold up in proper position, axillary rings, stuffed with bran, had been slipped over each shoulder and fastened behind to each other by means of an elastic band. These rings were regarded as very efficient aids in overcoming the tendency to contract in the axillary fold.

MIGRATION OF PURULENT MATTER.

Dr. Buck also read a paper upon the above subject, in which he mentioned the anatomical and other conditions upon which it depends, as illustrated by cases. By migration of pus is understood its accumulation in a locality more or less remote from the seat of suppuration, and it may take place in certain regions of the body, and is favored by the anatomical relation of the parts involved, especially in membranous structures and aponeuroses, and also by gravitation.

Three cases were then reported in which the parietes of the lower abdominal and pelvic cavities were concerned.

The first case was a child, eleven months old, upon whom a swelling in the left groin and upon the left buttock appeared simultaneously. The pus was thought to have come from the region where the iliac vein crosses the brim of the pelvis. There was marked enlargement of the superficial abdominal veins. The second case was in a male, 24 years of age, in whom a tumor appeared in the hypogastric region, simulating in appearance a distended bladder. It proved to be a collection of pus, and it was supposed that it came from the left ileo-lumbar region, as the result of a previous injury. The third case illustrated the fact that the pus from diseased vertebræ may migrate through the obturator foramen, and make its appearance upon the inner aspect of the thigh among the adductor muscles.

Dr. A. C. Post, in remarking upon the treatment of these so-called "abscesses by congestion" of the French writers, spoke of the antipathy which used to exist, and does now, with regard to opening them. The more modern treatment, however, is to open them freely, instead of making the old valvular incision, and then use free antiseptic injections. In this way the discharge can be made much more complete and the danger from decomposition of matter exposed to the air is very much diminished.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

INTERMITTENT FEVER TREATED WITHOUT QUININE.

This treatment has been used in some of the hospitals in Europe, it is reported, with considerable success, but in this hospital that success has not been obtained which has been claimed for it, because it has failed to cure more than one out of three. In making up our estimate of the value of any plan of treatment we should take into consideration the fact that, in a certain number of cases of intermittent fever, the patients, without medicine, will not have chills after admission to any hospital. The simple change of residence effected in this way is sometimes sufficient to arrest the disease entirely, and at once. Moving a patient even from one malarial district to another will sometimes arrest fully developed paroxysms of ague, which have resisted all ordinary forms of treatment. The plan of treatment, independent of quinine, consists in the use of ergot, and Squibb's fluid extract was prescribed in drachm doses every four hours.

A FAVORITE METHOD OF ADMINISTERING QUININE FOR THE CURE OF AGUE.

Give a single dose three or four hours before the time for the occurrence of the chill, and of sufficient size to produce well-marked cinchonism within two hours after its administration. After that give enough to produce a trifle of buzzing in the ears and continue it daily for a few days, and then use the drug in smaller doses daily for two weeks.

EPILEPSY.

It has been said that this affection of itself involves necessarily more or less impairment of the intellectual faculties. In a majority of cases it is not the direct effect of the epilepsy. The explanation is this: a person who has epilepsy does not, as a rule, exercise the intellectual faculties as much as he would otherwise do, and this was regarded as the chief or entire cause of the general mental aberration seen in these cases. If this be true, it is an important point in treatment to insist that the intellectual faculties of the patient be regularly and reasonably exercised.

A POINT OF INTEREST IN PHYSICAL DIAGNOSIS.

When the patient opened his mouth a *puff* sound could be heard, which was synchronous with the heart-beat. There were satisfactory evidences that a pulmonary cavity was present just behind the base of the heart. When the chest wall was firmly compressed this *puff* sound at once disappeared, but returned the moment the pressure was removed.

The explanation given was that the heart impulse was communicated to the walls of the cavity with sufficient force to affect the air contained within it and thus produce the sound heard. Such a sound can be very easily mistaken for a cardiac murmur.

ANGINA PECTORIS.

In this case there was aortic regurgitation, accompanied by visible pulsation of the radial, ulnar, temporal, and carotid arteries.

One feature of interest was the fact that the anginal symptoms, which at times were very severe, had uniformly been relieved with great promptness by the inhalation of the nitrite of amyl.

Another feature of interest was the presence of a mitral systolic non-regurgitant murmur.

Aortic regurgitation is necessary to its formation, and when a presystolic murmur is present it is very liable to be mistaken for a mitral regurgitant.

ACUTE ARTICULAR RHEUMATISM.

Pericardial inflammation had occurred in two cases while the urine was alkaline.

CHRONIC PLEURISY.

There are some points of interest in the following history, which began in the summer of 1874, when the man was admitted to the hospital, with the left pleural cavity filled with fluid. His previous history did not afford any evidence of pulmonary disease of consumptive nature. An exploring canula was introduced, and pus withdrawn; and then ℥ lxxx. were drawn off by means of the aspirator. The cavity soon filled again; and was again removed in the same manner as before; after which a free opening in the chest-wall was resorted to. The case is interesting in the fact that not so good results followed the free incision and daily washing out the pleural cavity as was expected. He did not do well, and yet it was difficult to tell why he did not improve, for the amount of pus discharged was not excessive, nor the amount of dyspnœa such as would account for a continued unfavorable condition. At one time he suffered from a severe diarrhœa, and it was then supposed to be probably of a phthisical character. Latterly, however, his improvement has been marked and progressive; and the benefit has arisen from approaching warm weather and going out of doors every day.

The case well illustrated the effect of hygienic measures in cases of protracted diseases, for since he had taken a ride upon the river daily his temperature, which previously had been every day or two dodging up to 102° or 103°, had fallen to near the normal standard, and remained there.

At one time his chest was washed out with a solution of quinine after the manner recommended in *The Practitioner*, but no other improvement followed than that which was regarded simply as coincident. His present condition is very good.

ANEURISM OF THE INNOMINATA.

There were several points of interest in the history of a case of this kind, which made it worthy of note. A male patient, æt. 48 years, was first admitted to the hospital in 1872, at which time the aneurism was just visible above the sternal notch. An operation was proposed for its relief, but the patient objected. He remained in the hospital about two months (the tumor in the meantime gradually increased in size), and was then discharged at his own request. In 1874 he returned, and it was found that the tumor had increased very much in size. Ligation of the right carotid and subclavian was again proposed, but the patient again refused to be operated upon. He remained in the hospital for a short time, and then went out considerably improved in his general condition. He has occasionally been in the hospital since that time, remaining for a while, and then going out, and in March, 1875, he went out and resumed his occupation as a porter.

Meanwhile the tumor increased in size, the aneurismal sac approached nearer and nearer the surface, until at length nothing but integument intervened between it and the external world. In the latter part of May he again entered the hospital, when an external tumor was found nine inches in circumference at the base, and projecting from the surface of the chest about three inches. The pulsations were so marked that they were plainly visible; the top of the tumor presented a bluish appearance, and it was evident upon close examination that the process of ulceration had already commenced in the integument covering it. Rupture seemed likely to occur at almost any moment. One day the sac ruptured, considerable bloody serum discharged, and the tumor diminished in size somewhat. Suddenly, about a week afterwards, the tumor ruptured, and the blood escaped with the greatest rapidity. The orderly of the ward seized a quantity of lint and pressed it into the blood and applied compresses over it, thus temporarily arresting the hemorrhage. The man, in the meantime, had lost some seven or eight pounds of blood and was in a condition of complete syncope when the house physician, Dr. Glass, arrived. By the exhibition of stimulants, however, he soon rallied. The circulation was now so slow that it was thought possible to remove the temporary dressings, and substitute a dressing which would be a more effectual protection against a recurrence of the hemorrhage. The dressings, accordingly, were carefully removed and a large mass of laminated fibrine found which had evidently been expelled from the cavity of the sac by the sudden gush of blood. New dressings were applied which effectually controlled the hemorrhage, and the patient was in a comparatively comfortable condition. This condition, however, was only temporary, for about ten days subsequently the second rupture occurred and the patient died. Post-mortem revealed the fact that the innominate artery was *unaffected*, but that the aneurism was connected with the aorta. We have therefore another illustration of the difficulty in making a correct diagnosis in certain cases.

ANEURISM OF THE THORACIC AORTA.

The situation of the aneurism was *thought* to be at the junction of the ascending with the transverse portion of the arch. The local signs present were the existence of a tumor projecting from the surface of the chest about an inch, and having a diameter at its base of an inch and a half or two inches, which had an impulse.

This patient has been in the hospital for a long time, and one point of interest in his case just now is the effect apparently produced upon the tumor by the internal use of digitalis.

It has been considerably larger than it is now, and the man has suffered considerable pain, but he is improving markedly, and it is fair to assume in this case that the improvement is due to the remedy administered. For the improvement began as soon as digitalis was administered in doses sufficient to affect the circulation.

COLICA PICTONUM.

The chief point of interest in this case was the rapidity with which the system became poisoned with lead. He had been at work in the Atlantic Lead Works, Brooklyn, only three weeks when the colic was sufficiently severe to oblige him to seek admission to the hospital. The characteristic line along the margin of the gums was well marked, and he was soon cured by the ordinary treatment, consisting of cathartics and iodide of potassium.

ASTHMA—PERMANENT EMPHYSEMA.

This case was interesting in one or two points, for instance it illustrated the probability of asthma being developed in a person over fifty-four years of age. This is rare. The man was a laborer, had always been healthy, and was suddenly attacked with difficulty of breathing, affecting him chiefly at night, obliging him to get up from bed and lean over the back of a chair and struggle for breath. The attack was accompanied by acute bronchitis. There was no chronic bronchitis, and he is now left with permanent emphysema. He has received great benefit while in the hospital from the use of iodide of potassium, which was administered with reference to the bronchitis.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 27th to July 3d, 1875.

Brooke, Jno., Assistant Surgeon.—Granted leave of absence for one month. S. O. 130, A. G. O., June 30, 1875.

Gibson, J. R., Assistant Surgeon.—Assigned to duty at Fort Fetterman, Wy. Ter. S. O. 73, Department of the Platte, June 26, 1875.

Hubbard, V. B., Assistant Surgeon.—Relieved from duty at Jackson Barracks, La., and assigned to duty, temporarily, as Medical Director of the Department. S. O. 120, Department of the Gulf, June 25, 1875.

Middleton, J. V. D., Assistant Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 118, Department of Dakota, June 24, 1875.

Medical Items and News.

"Medical Register and Advertiser" is the title of a new quarterly journal, issued in Anna, Ill., under the editorial management of Dr. James I. Hale.

Personal.—Two physicians in Quincy, Ill., have been sued by a patient on whom they operated for hernia. The declaration states that the defendants conducted themselves in an ignorant manner by unnecessarily, wantonly, improperly, and unskilfully performing a surgical operation on the body of the plaintiff, by cutting through the flesh of said plaintiff into the cavity, and through the left lower region of the abdomen, and in an unskilful manner the defendants took and removed from the cavity of the abdomen of plaintiff twenty-five feet of bowels, *by reason of which ignorance his recovery is greatly impeded!*

Philadelphia Hospitals.—The University Hospital receives $10,000 by the will of the late Mr. Towne.

The Jefferson Medical College is said to have bought ground in the rear of their present edifice, on which to erect a hospital that shall communicate directly with the college building.

The Journal of Psychological Medicine and Medical Jurisprudence has again undergone a change in the resignation of Dr. Hammond and the advent of his successor, Allen McL. Hamilton, who intends to make it quarterly instead of monthly.

The Boston Medical and Surgical Journal of June 17 (Boston: H. O. Houghton & Co.) is filled with matter relating to the early history of our country. There is a copper-plate frontispiece of Dr. Joseph Warren, and extracts are given from his day-book. The Diseases of America: letters written by a Hessian surgeon; A Tory Surgeon's Experiences, June 17, 1775; The Sick and Wounded at Bunker Hill, and a memorial poem to Joseph Warren, by Dr. Oliver Wendell Holmes. We hardly need to say that this number is not only unique in the literature of medical journalism, but also well worthy of preservation by all those who honor the noble example of the elder Warren.

Prize Essay.—The Medical Association of the State of Alabama has received from Dr. S. D. Seelye one hundred dollars to be offered as a prize for the best essay on "Bright's Disease." Competition is open to the whole country. The successful paper is to be the property of the Association, and will be published in its *Transactions.* Unsuccessful papers will be returned to their authors, and honorable mention will be made of such as are exceptionally good. If none of the essays submitted are deemed worthy of the prize, competition will be open for another year. A medal of the value of the prize will be given if the successful candidate prefers it.

Iowa State Medical Society.—At the meeting of the Iowa State Medical Society, held at Davenport, which closed its session on the 28th ult., the following were elected to be officers for the ensuing year:—*President*, W. F. Peck, of Davenport; 1*st Vice-President*, H. Restin, of Cedar Rapids; 2*d Vice-President*, Dr. —— Osborne; *Recording Secretary*, S. B. Thrall, of Otumwa; *Assistant Secretary*, J. F. Kennedy, of Des Moines; *Treasurer*, J. W. Gustine, of Panora; *Member of Nom. Com. in Amer. Med. Assoc.*, W. Watson.

The Treasurer reported a balance of $629.40 in his possession. A committee was appointed to prepare and present to the centennial meeting a History of Medicine in Iowa. The publication of the proceedings of the Society, commencing with 1871. was ordered, and the Society adjourned to meet in Des Moines in February next.

Surgeon-General John Fullerton Beatson has been appointed Surgeon-General of the Bengal Army.

Superintendent of Health of Wilmington, N. C.—The Legislature of North Carolina have created the above office, and specified that the duties of the incumbent will be to give medical attendance to the city prisoners, to such out-door poor as the Mayor may direct, and particularly to those with contagious diseases. In case of the outbreak of infectious diseases after a vessel has passed quarantine inspection, he shall have power to return the vessel to quarantine at the mouth of Cape Fear River. He is also to keep on hand good vaccine matter, and to vaccinate the poor of the city. The salary is to be $100 per month.

For Ingrowing Toenail.—Dr. D. S. Fiske, of Brookfield, Mass., writes: "Remove a V-shaped piece of the fleshy part of the toe so as to bring the nail over the outer part of the toe, making a flap of this outer part, and it will make a narrow toe and remove the difficulty better than any operation I have ever tried."

The Irish Hospital Gazette, which completes its third volume with the June 15th number, is to be hereafter amalgamated with the well-known *Dublin Journal of Medical Science*, which, with its July number, commences its sixtieth volume.

The International Congress of Ophthalmology will meet in New York City on the second Tuesday in September, 1876, at twelve o'clock noon. The following extracts from the rules of the Congress will give an idea of the general character of the Society, and of the terms of membership:

"1. The object of the International Periodic Congress of Ophthalmology is to promote ophthalmological science, and to serve as a centre to those who cultivate it. It will entertain no discussion foreign to this object.

"2. The number of members is unlimited.

"3. Every member must be either a doctor of medicine, or of surgery, or of science, or possess some other equivalent degree, or be distinguished for his scientific knowledge.

"4. Candidates for admission into the Society shall be admitted on presentation of their diploma or of their scientific title, unless ten members demand a ballot.

"5. The sessions of the Society shall take place every fourth year, and be limited to ten days."

"11. The Society gives no diploma. Before the opening of each session a card available for admission to all the meetings, and signed by the President and Secretary, shall be given to each member on payment of his subscription (fixed at $2), and upon signature of his name on the register of those attending the meeting."

Among the members of this Congress are such men as Arlt and Stellwag, of Vienna; Giraud-Teulon, Javal and Wecker, of Paris; Helmholtz, of Berlin; William Bowman, George Critchett, R. Liebreich, J. W. Hulke, and Soelberg Wells, of London; Donders and Snellen, of Utrecht, Holland.

It is hoped that many of them will come to New York in 1876. The committee are making all efforts to secure a large attendance, and one that will leave its mark upon the progress of scientific ophthalmology. The co-operation of the profession of the United States in securing these objects is earnestly desired by the undersigned, the Provisional Committee appointed in London in 1872.

Cornelius R. Agnew, M.D.
Henry D. Noyes, M.D.
Daniel B. St. John Roosa, M.D.

The Changed Organization of the Brooklyn Health Board.—The Board of Health, as reorganized by Assemblyman McGroarty's bill, which was signed by the Governor, will consist of three members—the Presidents of the Boards of Aldermen and Police and a physician who has practised for ten years in that city, to be appointed by the Mayor. Dr. Otterson has been appointed as the third member of the Board.

Death Rate of the Laboring Classes.—Mr. S. Royce, in a recent address before the New York Liberal Club, said that as many persons die every year of consumption among the poor as die of all other diseases among the wealthy. The annual death-rate among the laboring classes is, he said, 55 to every 1,000, while among the wealthy and well-to-do population the death-rate is only 15 in 1,000.

A Peculiar Case of Traumatic Emphysema.—Paucin found a considerable swelling of a portion of the thigh, the scrotum, the lumbar region, and the lower part of the abdomen, in a laborer, who said that, in punishment for some supposed injury done to them, two of his companions held him, while a third made a small incision in the inner surface of the prepuce, introduced a small tube into it and blew in air. An examination disclosed a small ragged wound three millimetres in length at the point indicated.—*Gaz. des Hôpitaux.*

An Advance in Dental Surgery.—Before "The American Academy of Dental Surgery," held on Thursday evening, June 10, 1875, George H. Perine, D.D.S., of New York, made some interesting remarks on the use of the galvano-cautery for oral surgery, which were followed by illustrations.

Dr. Perine claims to be the first person who has applied that particular cautery in dental surgery. He has found no agent so available and so efficacious in certain dental operations as the galvano-cautery, and strongly recommends its use to the profession at large. The battery employed by Dr. Perine is one of great power, and is regulated to suit the operation. The advantages claimed are that it does not affect the body in any degree unpleasantly, because the electric action is absolutely confined to the parts in contact with the blade or broach, the application of which is painless, and so instantaneous that no other known agent can compare with it; the application of it is easy and simple, and free from shock and hemorrhage (a desideratum of great moment), and finally, the separation process is rapid. Dr. Perine not only reasons warmly on this subject, so important, but he believes that the use of this particular cautery in dental surgery will become universal, for the extension of which he cheerfully imparts to his professional brethren his knowledge and experience.

Dr. B. A. Segur, Sanitary Superintendent, yesterday sent in his resignation to the Board of Health. It was accepted at once. Dr. Creamer and ex-Coroner Jones are candidates for the position.

Dr. B. Fordyce Barker is to take part in the final discussion on puerperal fever by the London Obstetrical Society on the 7th inst.

Dr. Horner is the medical officer on the *Pandora*, which was to leave England on the 23d ult. for an exploration of the Arctic regions.

Mr. J. N. Radcliffe has been elected President of the Epidemiological Society.

The Deutsche Klinik has suspended publication.

Sexual Wrongs.—*The Irish Hospital Gazette* thinks "it is quite time that those who have the education of the male human animal should by some means drive or hammer it into his dense moral consciousness that his procreative power was not given him solely as a means of amusement, and that women have other functions besides ministering to this often morbidly excited appetite."

Hospital Sunday.—*The Lancet* of the 19th of June announces that up to the 16th, the amount received at the Mansion House was £9,000, exceeding considerably the amount received by the same time the year previous.

Anti-Vaccinationists in Keighley, England, are meeting their reward. The Board of Guardians some time since suspended the Vaccination Act in the district. Small-pox now prevails to an alarming extent, seventy cases, of which nineteen proved fatal, occurring in the town and neighborhood in one month.

Vaccination among the Poor of this City.—During the month of July the Board of Health will furnish, on application at 301 Mott St., vaccine gratuitously to physicians who vaccinate without pay.

Original Communications.

BIOMETRY: ITS RELATION TO THE PRACTICE OF MEDICINE.

By MOREAU MORRIS, M.D.,
NEW YORK.

[A Paper read before the Section on Practical Medicine of the American Medical Association, at its Annual Session, held in Louisville, Ky., May, 1875, and referred to the Committee for Publication in the Transactions.]

In the practice of medicine and surgery the arts of diagnosis and prognosis are of the greatest practical value. To excel in these arts, much study and great experience are usually required.

The initial step in the treatment of disease or injury is first the diagnosis, second the prognosis. Any art or knowledge that can aid in acquiring proficiency in this direction may be considered as an additional contribution to the science and art of practical medicine.

Without a sufficient preliminary knowlege, it would only be empiricism to undertake to treat scientifically any malady.

To be able to make an accurate diagnosis properly, the first and most important requisite is to study the individual characteristics of the person as well as the symptomatology of the disease.

Symptoms vary with the same disease in different individuals, hence a study of symptoms alone is only an imperfect method. Theoretical knowledge may be of value to the purely scientific student, but practical knowledge is absolutely necessary to the successful medical man. The recent graduate in medicine leaves his alma mater comparatively unlearned in the art of diagnosis; his first efforts are nearly guess-work. He no longer receives from his tutors hints and suggestions, and must perforce launch upon the sea of uncertainty and doubt, and perhaps with his very first case discover that he has made a great error.

If he has had practical bedside experience, and been taught by a competent instructor, his first diagnosis may not be at fault, but if he has had no such practical advantage, then indeed it were fortunate for the patient to be possessed in no small degree with great viability. But the study of symptomatology alone can never perfect one in diagnosis and prognosis. There needs something more than present symptoms upon which to base a correct understanding of any case,—a knowlege of the physical indications of longevity must enter largely into these elements.

If symptomatology could illustrate for prognosis that degree of certainty which it does for diagnosis, the practice of medicine would be less empirical and more reliable.

From the earliest history of medicine there has always been recognized an indefinable something inherent in the human system, varying in degree and force; this has been variously designated the "tenacity of life," the "tolerance of disease," the "natural vigor of constitution," the "vis medicatrix naturæ,"—by which some individuals seem to be able to endure and pass successfully through the most serious of maladies or the most severe injuries without succumbing. Many instances might be enumerated in illustration, but every practitioner will readily recognize such examples in his own experience. How often persons have recovered after injuries, gunshot wounds and exhaustive diseases, who at the time, to all human foresight, seemed beyond recovery.

There is some inherent principle which mysteriously sustains life through these severe onslaughts. We must recognize a "vis preservatrix" and a "vis a tergo." What this force consists of, neither anatomy, physiology, pathology, microscopy, nor chemistry has been able to elucidate. We know that man inherits vital properties which are in force from conception to death; that his various components are endowed with lifetimes of variable duration; that, like other living things, some parts decay and perish before others, in regular succession. One day we see the plants beneath our feet spring up, throw out their green leaves, and budding flowers, all endowed apparently with vigorous, blooming life; and in a few months, or perhaps days, their flowers, leaves, and stalks fade, wither, and die. These are but prototypes of man. He springs up, flourishes for a time in full vigor, and one by one his secerning organs fail, until at last his physical entity ceases. The vital property has ceased to carry on its secretive power in one organ after another, until it can no longer sustain life. It is not within human ken to describe this vital property.

God breathed into our bodies life, which proceeds under the various laws of our being, so long as they are not violated, until the human machine wears out. It is within our power to cut it short, but not to prolong it beyond its natural inheritance. We can study its processes, observe the laws which govern it, judge of its force approximately, see its manifestations, and *estimate its probable period.* There are certain *uniform indications* by which we may judge of man's *probable lifetime.* Some are *endowed* with short life, some with a probable long and healthy life.

Inherited tendencies, habits of living, occupations, observance of sanitary law and residence—all have their direct bearings upon the question of longevity. Acute diseases, accidents, etc., have their life-shortening influences. All of these must be studied in their various relations to length of life.

This study has now resolved itself into a special science, and has been happily designated by the name of

BIOMETRY.*

Its adaptation to the practice of medicine is only one of the many applications of which it is capable.

Its study is comparatively of but recent date. Like every other science its study involves labor and care; statistics are to be collected and compared, its rules and laws elucidated and fixed, to make its practical application of value. When these laws become understood, their application is readily recognized. In medicine, in life insurance, in business, in social life, in a higher elevation of mankind generally, both physically and morally, the application of the science of biometry will be found invaluable. The laws of natural selection, by which physical perfection may be attained, will find in its exposition the true guide-posts by which to accomplish that much-desired result. Intuitively we all apply its principles, even without, perhaps, being able to analyze the reasons for our judgment. The physician, by observation and long force of habit, is constantly applying its fundamental truths. He sees nature asserting and exhibiting wonderful endurance and adaptation under the most adverse circumstances, yet he is unable to define or explain the reasons.

In every-day life we constantly apply its principles in our intuitive estimation of our fellows, we judge of men's qualities or adaptation for certain kinds of business without system or explainable method.

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* "This is a word whose precise derivation illustrates its intended meaning—from the Greek words *Bios*, life; *Metron*, a measure." And as "Geometry, from *Ge*, the earth, and *Metron*. a measure, means not merely a measure of the earth, but also the science and art of measuring the earth, so does biometry mean the science and art of measuring life or lifetime."

To Dr. T. S. Lambert, more than any other man, belongs the credit of having studied and reduced to a scientific basis the development and application of this instructive and interesting science. During many years of close application and observation he has fortified its truth by thousands of examples, and so simplified its practical application to the business of life insurance, that its laws have become the fixed data in estimating the probabilities of life's period; and as this business, when scientifically and successfully transacted, very largely depends upon a correct estimate and judgment of the probable length of any proposed life, as a matter of security and equity, its application in this direction has already, in the company with which he is connected, reduced the hazard of the business to one of great certainty.[*]

He remarks in speaking of a lifetime:

"It includes inception, birth, and the intervening period until death. Life is never found in any other than these relations.

"It is seen under these different forms in the plant, in the animal, and in the egg. We should expect to see in each of these forms some substance in common, in which the life inheres; and if only one substance is common to all these, life must be dependent upon that.

"A plant is constituted of woody tissue and of secretory tissue; the egg, of an amorphous substance and secretory tissue; the animal, of several tissues and of secretory tissue.

"The deduction is evident, secretory tissue is the only substance common to all living things.

"It has also a lifetime; it is born, it dies. No other substance is like it in these respects. In fact, life exists only in connection with secretory tissue, and when one ceases to exist the other does also, and it is said that death occurs. While secretory tissue acts, life is exhibited; as soon as its action ceases, life is shown no longer; life must therefore be the property of secretory tissue, and its duration must be fundamentally dependent upon their constitution; or lifetime is merely the period during which the secretory tissue can act under ancestral influences, and when from any cause they lose that force, death occurs.

"Secretory tissue has, therefore, a birth, or a departure from ancestors, which is necessarily related to its decadence, on account of its gradual and irreparable exhaustion of ancestral influences.

"Secretory tissue is the only kind of tissue or substance that is transmitted from ancestors in either plants or animals, and therefore can, and does, contain in itself all the inherited ancestral influences that are transmitted.

"Different natural lifetimes of different plants and animals must, therefore, be owing to natural or constitutional differences in their secretory tissues, and the necessary antecedent conditions for producing these differences must be found in the antecedent ancestors.

"There are not only different kinds of secretory tissue, having different lifetimes, in the same plant, but different portions of the *same* kind of secretory tissue in the *same* plant have different lifetimes. This is also certainly the case in animals.

"In man there are fourteen kinds of secretory tissue, secreting or producing, in their peculiar manner, from the blood, as many kinds of fluid. For example, the tear fluid, saliva, gastric juice, the bile, pancreatic, urinary, etc. In every kind of organ one or more kinds of the secretory tissue may be found. It may be also said that the six solids of the body are secreted, and the remark would in a sense be true. It may also be said that these, *i.e.*, the bony, gristly, sinewy, nervous, and muscular, as well as the secretory proper, do not only secrete, but exhibit life—for *secretion is living*, and cessation of the power or property of secretion is death. But in a different sense the secretory tissue performs this function of secretion, for it not only secretes itself, as the other five tissues do, but it also secretes some fluid for other uses than are found in itself alone,—the other tissues do not. In the new-laid egg neither of the other five tissues are found, but secretory tissue is there; ere long the others appear. Each of these can be produced without the antecedent presence of any tissue of its own kind, but secretory tissue never, so far as we know, except in the presence of, and in contact with, secretory tissue.

"What hinders us, then, from finding all the organs endowed with peculiar lifetimes, dependent upon the lifetime of the secretory tissue or tissues essential to the structure of the organs respectively?

"It will also be found that all of the secretory tissue in any organ do not necessarily have the same lifetime. *Example.*—In the sides or walls of the stomach, we find, opening into that organ, millions of microscopic tubes, each one distinct from the rest, its interior constructed of secretory tissue necessarily endowed with its special lifetime, which may be shortened, but cannot be lengthened. It would be truly wonderful if the lifetime of all the tubes should be the same. Suppose 100,000 tubes to be endowed with a lifetime of forty years, and the rest able to live to seventy or upwards. Would the person pass the age of forty without inconvenience? The digestion would certainly be impaired, at least for a time, and doubtless he would always after be incapable of digesting as much as previously. Although he might feel and appear to be as well, yet he could not accomplish as much of some kinds of work as if he had 100,000 more gastric tubes.

"In the stomachs of persons past the middle of life, exposed by post-mortem examinations, it will usually be found that already a larger or smaller number of the gastric tubes have been obliterated; the organ had, therefore, so much less capability of digestion. If we examine these tubes, we find that at the bottom of each the secretory tissue appears in the form of cells or minute oval bags, which are filled with the gastric juice—that in fact is secreted in them. These cells grow with almost inconceivable rapidity when the gastric juice is needed in the stomach, and, loosened from their birthplace, they come up to the mouth of the tubes and, bursting, yield their contents to aid in the process of digestion. Successive cells pass up from the same origin in the bottom of the tubes. In this general form of cells, of different shapes and properties, the active secretory tissue everywhere appears. Each cell has a very short lifetime, and each cell series has its own lifetime. The being born and dying of the cells is continuous, but in each succeeding cell there is a change and a progress, so small with each step, that it is not appreciable with our present means, but so sure and steady, that in a certain period the process will necessarily conclude; life will then be no more manifested by that cell series,—its death will be said to occur, and its position will be barren.

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[*] The former method of basing the cost upon the general average death-rate of all mankind, as deduced from various experience tables, has, in that company at least, been discarded, and the results already accomplished by the application of this science to the problem has created the greatest astonishment in the life insurance world. Death ratios, from having been ten to twelve per thousand among selected lives, are reduced by this method with almost absolute certainty to less than four per thousand; hence the direct pecuniary benefit to the world, as respects life insurance, is more than three-fold as regards the proper cost to such risks.

"Organs, then, are not units in regard to the secretory tissues that enter into their construction. Each organ is an aggregation or a compound, and in the units, as they may be called, of the organs, there may be, and often is, a great diversity of natural lifetimes, apart from any effect produced by contingent influences. These produce what may properly be called *disease, i.e.,* that which cuts short, or tends to cut short, a natural lifetime. But when the death results from the extinction of the natural lifetime of an organ, or a part of it, at its full period, it will also be called disease, if the other organs have a longer natural lifetime and appear to be enduring. But if all of them have reached their natural period of death and manifest completed life, the person will be said to die of *old age.* But there is more frequently old age of an organ, or of part of one alone, than of all of them at once. If a sufficient portion of the secretory tissue of an essential organ be short-lived, a person will die at *its* death, no matter how long-lived the other organs may be. But if the short-lived organ is not essential to general life, the use of it only is lost. A person may inherit from a father deafness (early death of the ear), or from the mother blindness (early death of the eye), yet live to a good old age; but if he has inherited lungs, kidneys, stomach, or liver short-lived throughout, he dies of the so-called disease—properly speaking, of old age—of organs to which his death is attributed.

"But they are the resultants of the co-ordinated vitalities and longevities of his organs, which, superficial or deep-seated, directly and indirectly, indicate their respective life capacities to the skilled or expert observer. Hence the difference in the vitality and longevity of men depends, primarily, upon their organic, or rather, tissural constitutions, and upon the relative importance of the shortest-lived organ or part of it in the organism.

"The inherited lifetime is always the resultant of the conjunction of antecedent ancestral influences, either of which, or both together, may deprave the inheritance below that of either parent stock. This is often the case, while very seldom do the concurrent influences produce a better condition than any antecedent. To the ancestry we must look for the capability of long-living. It is observable that a nose may resemble that of one parent, and an ear that of another; the hair may be as red as a grandmother's on the mother's side, and the beard as dark as that of the grandfather on the father's side. The length of the nose may be like the mother's, the breadth like the father's—a single organ showing perhaps half a dozen inheritances, why not half a dozen lifetimes? Why not inherit a stomach from one, a liver from another, or a single such organ from a half-dozen ancestors? One brother, externally, almost entirely resembles the mother; a sister resembles the father so closely that many would say she does not resemble the mother at all. Why may it not be so within, as well as without? It is. It is a fact that a large majority of persons die nearly at the same age as some ancestor or perhaps younger, and of the same class of diseases. There is usually, also, a strong external resemblance. A great-grandfather died of heart disease at 76, a grandfather at 71, a father at 65; the son strongly resembles the father and grandfather; the son rightly infers that 'he will die still younger of the same disease;' but instead of calling his case a disease, he should say that his natural lifetime will doubtless be shorter than his father's.

"All parts of the body are originally constructed, and are each moment kept in repair, by the same dominating nervous centres. Those which make the stomach what it is, will produce some other effects which can be seen externally. Each organ exerts an influence, greater or less, directly or indirectly, upon all the other organs—upon those at the surface as well as upon those within. 'Like causes produce like effects,' *within* the body as well as out of it. When, therefore, effects are seen upon the surface, the causes may be known to be also acting within.

"Can the internal inheritances, or the constitutional lifetimes of organs, be discerned by external marks, appearances, or indications? Certainly, in most cases.

"In the first place, by studying the necessary physiological relations of the organs of the body and the influences which they exert upon each other; and in the second place, by observing the external manifestations of the body with a discerning eye, the external indications of internal conditions and of the constitutional lifetimes of organs can soon be practically learned.

"*Example.*—It will be found that the kidneys, for good physiological reasons, have intimate relations with the skin, and that their conditions, liabilities, and probable lifetimes are discerned more readily, in fact through corresponding peculiarities of the skin, than they could be by looking directly into them, which cannot be done during life.

"Almost every one is familiar with various facial expressions or constitutional peculiarities that indicate present or future health of the various organs. To see more only requires a closer observation, especially if guided by the light of a preparatory study of physiological relations."

The laws of biometry are abundantly illustrated by heredity. The histological characteristics of persons when studied under these laws present the most convincing proofs of the status of biometry as a true science. In the examination of the ancestral histories of thousands of individuals, the deductions therefrom establish the fact that certain measurements can be relied upon almost infallibly, by which to read backward from the person the life characteristics of the ancestry, and hence inversely to determine the individual's life probabilities. So, when we find a person presenting these general measures in due proportion, we may judge, almost invariably, of his powers of resistance or natural viability. If so be he is descended from a healthy, long-lived stock of both parents, almost without exception it will be found as a rule that he is both healthy and long-lived, able to endure much hardship, resist grave maladies, and to recover from the most serious injuries and great nervous shocks.

Again, it is found from observation that where there has been long and vigorous ancestral stock upon one side, with perhaps short life engrafted from the other, such person will arrive at a period of partial decline, with ill-health, and subsequently recover, living on and beyond this deflection, being sustained by the vitalizing secretory influences of the longer-lived ancestor. A moment's reflection will call to mind many such instances, as when persons have remarked that at a certain period of their lives they were suffering from some special disorder, from which after a period they have seemingly entirely recovered and enjoyed sound robust health. Many such instances must have occurred in every medical man's practice.

That longevity is a resultant of heredity no one will dispute, and that it does not depend upon race, climate, mode of life, or special observance of sanitary law, is also a self-evident fact. Those who have inherited it can, seemingly with impunity, almost defy all sanitary law, and yet continue to live up to and beyond the allotted limit of "threescore years and ten," while those who have not inherited long life cannot by any system of life, or observance of the laws of health or process of prolongation, protract their naturally short-lived inheritance. Of course we must admit that abuse can and does shorten the lives of the naturally long-lived, and acute disease or great injuries cuts them off suddenly; but the rule holds good that the naturally long-lived inheritance affords that innate power of resistance which will carry them through disaster and disease that will certainly destroy the naturally short-lived.

The probably short-lived may be equally healthy and robust, and able to endure almost as much, while that life lasts, as the longer-lived. yet it seems to be the fact and nature's law, that the period of existence has had its set limit, beyond which no process of prolonging can avail to carry it further than the allotted period. The secerning elements of the vital organs have their limits, and hence control the existence of the whole organism. We see this illustrated in almost every organ of the body; certain parts cease to perform their functions, die out; and, so long as these are not vital, life continues, although it may be in a restricted sense, —as, for instance, persons become bald or partially so at a certain age; they say the same occurred in their ancestors at about the same age; others find their digestive powers failing, and remark the same thing as having occurred in their parents or grandparents. The secretory vitality of these parts is then seen to follow the law of heredity.

Without an inheritance of long-lived secretory powers, it is vain to expect any great degree of longevity in the descendants.

In estimating the probability of a lifetime it is entirely useless to depend upon the general average of human life. This rule holds good only as respects human life at large, and therefore we must look beyond life statistics to sum up the problem. *With the duration of individual life general average holds no command.* Ancestral longevity will not obey the general average law, but defies death in many shapes, holding on tenaciously until the machine, actually from rust and the interstitial deposits of years among its most delicate parts, wears out. Even though many times wrecked, battered, shorn of all their sails, and rudderless, their sound-timbered, well-built organs ride out the storms of life to an extreme old age.

The important question then arises: Are there any well-marked indications, externally manifested, by which it is possible to judge of men's powers of resistance to the destructive influences of life?

Are these indications so palpable that ordinary persons can judge by the personal characteristics sufficient to estimate the probable chances of recovery, or in other words of the probabilities of life in disease in different individuals.

These questions may be answered with confidence in the affirmative.

If such is the fact, then it must be admitted we have at hand one of the most certain means of deciding upon the prognosis, and the science of biometry comes in as the grand marshal of symptomatology and diagnosis. Our treatment of disease can be regulated accordingly. It will not be necessary to fill the human stomach with the contents of the apothecary shop in order to find "something that may hit the disease." By reason of the certainty of our knowledge we can inspire our patient with the hope that is within us, and when he is so inspired, half the battle is already won. Who has not seen the brightening eye, the stimulated courage, the grand fight of an unconquerable will, which hopefully and patiently has resisted the almost overpowering death struggle, when his doctor, judging from his own intuitive perception of the great tenacity of the life before him, has assured his suffering patient that he will recover?

Does it not occur to every practitioner, how many times in his own practice the thought has instinctively forced the conviction upon him that the patient would recover, and again with another patient his hope has sunk from seeing that there was no sustaining vitality to aid in the desired recovery?

True, some medical men take no note of such conditions; they hope and fear for all equally and without special discernment.

But most physicians will recall scores of instances in which they have been favorably and unfavorably impressed by different patients. and mentally, at least, prognosed their cases accordingly

Indeed, so decided and correct is this judgment with some physicians, that they and their acquaintances are prone to consider their off-hand conclusions at the bedside as almost, if not quite, intuitions.

Let us pause for a moment and reflect upon these facts. Is it not a little singular that they have not more strongly and distinctly arrested our attention and so fastened themselves in our minds that we should draw from them the instruction which they are capable of yielding?

When we ask ourselves or others why these impressions, of decease of one patient and recovery in regard to another, how indefinite and unsatisfactory the answer! Ought we not be able to give a reason for the faith that is within us? Are not our impressions wholly dependent upon the appearance of each patient respectively? Cannot these appearances be defined. be described in detail completely?

Cannot these appearances be analyzed, and the relation of each detail to disease or recovery be made so clear and conspicuous that even the tyro in medicine may have a reliable guide to a correct prognosis in every case? Shall we say, as is often said, that there is an indefinable something in the appearance of the patient that impresses us thus or so, we know not how or why?

Too long has this mysticism been allowed to govern the medical profession. Too long have we looked upon patients as through a glass darkly, and have envied the select few who seemed to have a mysterious, instinctive insight into the prognosis, as if gifted beyond their more plodding fellows, the mode of which was not to be described by them nor learned by observing their methods.

These erroneous notions must be laid aside, and we must see to it that prognosis is to be acquired in a scientific manner, not alone simply by feeling the pulse, looking at the tongue, taking the temperature, or other similar means, but by a thorough detailed analytical observation of all the signs and indications that patients present in the size and color of some or all parts of their bodies.

Another very important part of our prognosis will be dependent upon our having a correct idea upon the following point; that our organs are not units but communities, each member or element of which is nearly, if not quite, independent of its neighbor; for example, each gastric tube or gland in the stomach is, or may be, an independent unit, so far as its longevity and liability to disease is concerned.

Virchow has well said that a single cell may be independently diseased.

Dr. Lucas, in his *Traité Physiologique et Philosophique de l'Hérédité Naturelle*, remarks as follows: "The *average of life* plainly depends on locality, hygiene, and civilization: but the *individual longevity* is entirely exempt from these conditions."

"Everything tends to show that long life is the result of an internal principle of vitality which privileged individuals receive at their birth. It is so deeply imprinted in their nature as to *make itself apparent in every part of their organization*." *

The foregoing statement of Dr. Lucas is also quoted with emphatic approval in a recent work on Heredity, by Ribot, of whom Dr. Lambert remarks that he "may be justly regarded as the ablest of European writers upon this subject."

This interesting and practically important idea of the different lengths of life is well illustrated in the hair glands on different heads not only, but on the same head. Some hair glands inherit a life of ninety years, while their fellows terminate their inherited longevity at twenty years or under.

As before remarked, how often we see baldness follow ancestry, even in quantity and position, and the question cannot be avoided: Does not analogy legitimately argue that a similar condition should be expected in every other organ of the body possessing a community of glands?

It is not enough that we analyze the appearance of patients, so that we can discern which *organs* are affected, but we should be able to recognize to what *extent* they are impaired, how large a *portion* of them has reached the natural terminus of the longevity belonging thereto, and which is bound to die then and there. If this portion is large enough and belongs to a sufficiently vital organ, to commit homicide upon the other organs of the body depending for life upon the dying portions, it matters not how long-lived the other portions or the other organs may be by inheritance, they must then and there die from inanition. Marasmus is an apt illustration of a homicidal death by this method.

In such cases there will be at first a general appearance of much vigor, and a man of but little observation would be likely to prognosticate recovery, not remembering that "the chain is never stronger than its weakest link." We must observe the weak spots. Then shall we find that many more deaths are produced by natural unavoidable causes, namely, the termination of the inherited naturally short life of some organ or portions of it indispensable to the continuance of the whole, than we usually have supposed; whilst again many recover from severe attacks on account of the inherent longevity of such a proportional part of the diseased organ that there really was no danger of dying even under the worst kind of treatment.

Will not these suggestions account for the apparent success of all kinds of quacks and ignorant pretenders everywhere and in all times?

Will not the consideration of these two fundamental ideas of biometry—first, that each organ is not a unit but a community of parts in regard to longevity and liability to death; and second, that the inherent longevity of any considerable part of the body can be discerned through the signs and indications that its various external parts manifest—will not, I repeat, these points of biometry make the prognosis of disease much more interesting and satisfactory and practical in its treatment than has ever been the case? Will it not be gratifying to exchange the unsatisfactory impressions, intuitions, or guess-work, as some are inclined to call it, for a rational, reliable method governed by fixed law?

All who have carefully watched the progress of disease must have been convinced that there is some general law to which these instinctive intuitions of many physicians point.

That fundamental law is found only in or rather constitutes the science of biometry. Not only do all beings endowed with life tend, in obedience to the law of heredity, to repeat themselves in their descendants, but also in their physiological and pathological characteristics as related to health and disease, follow the same laws, or rather the broader one, of which the signs and indications of longevity are the expression.

But how may we discover the indications by which to judge in any given case of the probable lifetime naturally belonging to it?

By instituting comparisons or observing certain general configurations uniformly found in a very large number of individuals, it has been found that certain universal conditions pertain to the long-lived and to the short-lived exclusively. These are found in the size, shape, proportion, color, and capacity of all parts of the body.

Thus we can compare persons descended from long-lived with those from short-lived ancestors, and notice the differences which, as a practical fact, are *found to be well defined;* for example, the following: the comparative size and shape of the head; the colors of its external components, as hair, beard, eyebrows, eyes, shape and size of nose, lips, chin, and features in general, and their comparative relative measures; the trunk with its relative proportions,—it may be here remarked, that the *length* has even a more important significance than the circumference; for when the proportion of the trunk is in excess of one-third the height of the figure, we may be assured of corresponding great life, tenacity, and capacity. A comparatively long trunk gives us a form that affords room for the functions of respiration and digestion, the two most important life-sustaining functions of the whole organism.

Given good respiratory capacity and good digestory apparatus, may we not prognose a healthy, vigorous constitution?

In looking over these indicative points, especially in the sick man before us, we need also to inquire into his ancestral characteristics. What has been, not the average, but the special duration of the antecedent lives of his progenitors? What were their peculiar diseases, family diseases so called, and of what diseases, and at what ages did they die, if dead?

Here lies the clue to the factors of the disease under observation in any case.

By observing and applying the laws of biometry in the treatment of disease, the medical man places himself in the front rank of the benefactors of mankind, and he is also thereby enabled the better to apply the great laws of hygiene for the benefit of his patrons. Observing the temperament, the tendencies to some special form of disease, the predispositions, he is qualified to extend his warning advice regarding occupation, residence, and habits of life, and to suggest at what period of life may be expected certain ailments, and the necessary precautions to avoid, if possible, their worst effects.

Thus in applying the laws of biometry we may not only be useful to our fellow-man in curing disease, but also as conservators by our forewarnings.

We arrive, then, at this grand conclusion, that when we come to study the laws of biometry, we are no longer at a loss to understand the fundamental reasons of these apparent intuitions; they need only to be analyzed to give us the true indices of the viability and power of recuperative energy inherent in our patient. Mysticism is replaced by true science, which, when earnestly studied, gives us the grand truths of biometry sustained at every point by heredity, physiology, pathology, and actual results.

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* The Italics are ours.

Having exceeded the allotted time which has been already extended beyond the limits usually accorded to papers, I will omit reading the details of the signs and indications, which have been found to be so uniform in their general features as to be reliable indices of longevity (both long and short), and hence useful as indications having relation to the prognosis and diagnosis of disease.*

* * *

PENETRATING PISTOL-SHOT WOUND OF ABDOMEN—PASSAGE OF THE BULLET PER RECTUM ON THE FOURTH DAY, FOLLOWED BY RAPID RECOVERY.

By WILLIAM O'MEAGHER, M.D.,

NEW YORK.

ABOUT 4 P.M., on the 25th of April, 1875, an able-bodied laborer, while standing at the bar of a liquor store, drinking with some acquaintances, received a pistol-shot from the hand of one of them. He was at first unconscious of his condition, owing to deep potations, until one of the party, more sober than the others, had made a hurried examination. He was then carried to his home near by, where I saw him shortly afterwards lying on his back in bed, somewhat sobered, complaining of pain, faintness and chill, and restlessly moving from side to side.

A brief thorough examination disclosed the usual appearance of a bullet wound of small size, from which there had been only a few drops of blood externally; how much internally was for future determination; it was also evident that the bullet had penetrated and lodged in the abdominal cavity, having entered at the right upper angle of the umbilical region, the situation of the wound corresponding, as nearly as can be ascertained, with a portion of the transverse colon, the commencement of the duodenum, possibly the greater curvature of the stomach, distended by a hearty meal and fermented liquor. Although the pistol was fired within a few inches of the body, the bullet failed to pass through, owing to the obstacles presented by a coarse cotton blouse, a thick padded vest, four folds of a heavy blue flannel shirt, and a cotton wool undershirt. Without any unnecessary delay in vain efforts to find the bullet, the wound was cleansed, and closed by a compress of old linen, wet with cold water, covered with oiled silk, and kept in place by a broad bandage, tightly applied. During the examination and dressing he vomited freely about a quart of partly digested food and beer, in which, after careful examination, neither blood nor bullet could be detected. An opiate, combined with an alkaline diaphoretic, was freely administered, and ice, with carbonated water, allowed in small quantities, to allay thirst. Directions were given to examine the excretions closely, and absolute rest on the back, with the knees in the flexed position, enjoined.

That night he was tolerably comfortable, vomiting a little at intervals, somewhat feverish, and unable to sleep. Next day symptoms of peritonitis set in, with a chill, followed by increased pain and tenderness of the abdomen, and a little later by tympanites, so that I was obliged to loose the bandage and apply a bag of pounded ice to the wound. Five grains of Dover's powder, with a grain of calomel, were then administered every three hours. Under this treatment he was more comfortable that night, sleeping a little at intervals, and feeling better next day, the fever having abated somewhat, and the gastric disturbance having subsided into a kind of abortive hiccough. The iced bag was replaced by a wet napkin, covered with oiled silk.

On the third day, feeling much better, he expressed a desire to evacuate the bowels, observing that he thought he would be helped by the operation. After some hesitation I resolved to give him an oleo [terebinth. enema, which acted promptly in two free evacuations, followed by speedy relief of all the symptoms—pain, tympanitis, gastric irritation, etc. A careful examination of the passages discovered nothing unusual to prolonged constipation, and I began to hope the intestines had escaped injury. On the fourth day he was much better, but still expressed a desire to go to stool, notwithstanding the free use of opiates, taken as at first prescribed, with very little drink, and no nourishment. After some deliberation I prescribed a castor-oil draught, which operated in the usual way, producing three passages, in the last of which the bullet was found imbedded in a small mass of fæces, requiring considerable washing to remove. After this his progress to complete recovery was uninterrupted by any untoward symptom, care being taken only to confine him to light nourishment. In nine days the wound was entirely healed, a little circumscribed induration alone remaining around the scar. He was kept in bed for two weeks altogether, as a precaution. The bullet was part of a patent cartridge, made to fit a Smith & Wesson revolver, size number one, and weighed only forty grains, apothecaries' weight.

I have seen him occasionally since, and, although unable to labor at hard work, he says he feels well and strong, suffering no inconvenience except from an occasional twinge in the site of the wound, and from the bandage which he still wears.

The favorable termination of the case, I think, was owing to the smallness of the missile; to the early closure of the wound; to the entire absence of attempts to find the bullet by probing, a species of surgery not only meddlesome, but criminally dangerous; to abstinence from food and drink except in small quantities; to absolute rest and a good constitution.

A few similar cases only are recorded, as far as my reading extends—two by Hennen and one by McLeod.

137 E. 117TH STREET, *June* 23, 1875.

* * *

CHARITABLE WORK OF THE CHILDREN'S AID SOCIETY.—For several years past the Children's Aid Society has endeavored to stem the tide of infant mortality during the summer months, and it will be gratifying to know that the Society has decided to open the "Sick Children's Relief Fund" again this year. Parents who are unable to procure proper medical attendance, medicine, and nourishing food for their sick little ones, can obtain them gratuitously by applying at the head-quarters, No. 325 Rivington street, or at the central office of the Children's Aid Society, No. 19 East Fourth street.

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* In another edition the signs and indications of biometry will be treated of in full. Please send for the complete edition, to MOREAU MORRIS, M.D., American Popular Life Insurance Co., 419 and 421 Broadway, New York City.

Progress of Medical Science.

A NOVEL METHOD OF TREATING THE VOMITING OF PREGNANCY.—Dr. Edward Copeman, President of the British Medical Association, in an article in the *British Medical Journal* of May 15, 1875, relates the histories of three cases in which vomiting had resisted all the usual remedies, and in which a new treatment, discovered by accident, as it were, succeeded in checking the vomiting almost immediately. In the first case, that of a lady six months advanced in pregnancy, the vomiting had become so excessive as to occasion great fears for her safety. Dr. Copeman saw her in consultation with two other practitioners, and advised bringing on premature labor, which the others at first were rather unwilling to agree to on account of her depressed condition, though they finally acquiesced in the plan advised. Accordingly he at once dilated the os uteri as much as he could with the finger. so that he could feel the membranes and head of the child. An attempt was made to rupture the membranes, but failed, owing to their flaccid condition and the slight resistance offered by the head to an ordinary female telescopic catheter, the only instrument at hand. After this failure it was decided to wait a little while before resorting to other means. In an hour she was seen again, and he was surprised to learn that a longer period than before had elapsed without sickness, so it was determined to wait another hour in the hope of giving her some nourishment. During that time no vomiting occurred, and it was decided to resort to no further active measures, but to wait for further developments. No recurrence of the vomiting took place during the night, and the case went on favorably to full term, when she was delivered of a healthy child, and made a good recovery.

The second case was one in which pregnancy was only of two months' standing, and in which the surgeon in attendance had exhausted the best acknowledged remedies, and had arrived at the conclusion that artificial delivery would be necessary to save her life. Dr. C., keeping the first case in his mind, and wondering whether the dilatation of the os in this first case, by removing any undue tension productive of sympathetic irritation of the stomach, had been the cause of relieving the vomiting, examined the uterus, found some degree of anteversion and the os patent enough to admit the tip of the finger. He immediately dilated the os as much as he could, passing his finger all round, and removing all puckering of the os and rendering its edge smooth. She vomited slightly only once after this procedure, and he left her with the understanding that in case the sickness returned he should be summoned again to bring on abortion. But the summons never came, and in a fortnight he heard that she began to improve decidedly an hour or two after he left, and that the sickness had entirely ceased. Several times since he has heard that she was doing remarkably well, and he believed that she expected to be confined during the month (May).

In the third case, the patient was the mother of nine children. Generally during early pregnancy, and sometimes for several months together, she had been troubled with vomiting, but in this pregnancy, for three weeks before his visit, the sickness had been almost constant. She could retain nothing on her stomach, and was in a very weak and enfeebled condition. Considerable albumen, some pus, and a few casts were found in the urine. There was no dropsy. On examining the os, he found it patent, puckered, and dilatable, so he proceeded to dilate it as much as possible with the finger, in the hope that the sickness might be relieved as in the other cases. A few days after this he was informed that no return of sickness had happened since his visit, and that she was able to take food without inconvenience, though she was still very weak and ill. Since then he has learned that she had been safely delivered and was doing well.

In conclusion, he says that the subject seems to him to be of so much importance that he reports these cases without waiting for others, or attempting to explain the *modus operandi* of the treatment, but hopes to communicate further when he has more thoroughly thought over the subject, and promises to report any future success or failure that may come under his observation.

Dr. Graily Hewitt, in the same journal for May 29, 1875, gives what he considers to be the true solution of the *modus operandi* of treatment in Dr. Copeman's cases. He says that in 1871 he read a paper (see Transactions of the Obstetrical Society, vol. xiii.) in which he enunciated the theory, supported by facts and observations, that vomiting in pregnancy was due to flexion of the uterus, the compression of the tissues at the seat of flexion being the irritation giving rise to the vomiting.

He believes that in all of Dr. Copeman's cases there was acute flexion, and that the dilatation of the cervix relieved the vomiting by overcoming the cramped and confined condition of the uterus; and he believes that this same condition is the cause of vomiting even up to the eighth month, because in such cases the tissues of the uterus at the point of flexion are sometimes left in the early months in a diseased state, being stiffened and unduly resistant, and thus the irritation is kept up. He says that he has been in the habit of treating obstinate vomiting in pregnancy by elevating the body of the uterus, and has found that the same good results have followed as in Dr. Copeman's method.—*British Medical Journal*, May 15 and 29, 1875.

SUPPURATIVE INFLAMMATION OF THE KNEE-JOINT TREATED BY ASPIRATION AND COLD—RECOVERY WITHOUT STIFFENING.—A man aged twenty, suffering from acute inflammation of the left knee-joint, following a severe sprain, was admitted to the London Hospital, under the care of Mr. Hutchinson. Sixteen days after admission, the joint, in spite of treatment, had become distended with fluid, and the skin was thin and red, showing a tendency to point. The pulse was rapid and the temperature rose to 103°. Mr. H. says that the condition of things would have fully justified incision into the joint, but that he preferred at first to try the aspirator. The needle was introduced at the most prominent point of the swelling, and about an ounce of distinctly purulent synovia, opaque and yellow, was withdrawn, when the canula became blocked. The instrument was then removed, the joint still containing a good deal of fluid. On the following day, November 17th, the largest trocar of the aspirator was introduced, and about two and a half ounces of purulent fluid were withdrawn. By the evening of the following day he was much relieved, and a couple of ice-bags were placed on the joint, the leg still being kept upon a splint. No tension or tenderness was discovered, and no fluid accumulated after this date. Three weeks after the tapping, the splint was removed and he was allowed to bend his knee in bed, which he could do freely and easily, nor was it followed by any bad consequences. By January 15th he was quite well, with no swelling about the joint.—*The Lancet*, May 29, 1875.

Dilated Heart from Valvular Lesion; Puncture of the Right Ventricle by Error; Relief of Symptoms.—At a meeting of the Clinical Society of London, held May 14, 1875, Dr. George Evans related the particulars of the above case. A woman, aged 27, was admitted into the Middlesex Hospital, under his care, on February 22, 1875. She was suffering from rheumatism and heart disease, the latter the result of a former attack of the rheumatism. The area of præcordial dulness was increased, there were murmurs at the apex and base of the heart, and there was considerable dyspnœa. Four days later the dulness was considerably increased, and there was very obvious bulging of the chest-wall; the heart-sounds were muffled and the distress in breathing excessive, threatening immediate death.

On consultation, it was decided to tap the pericardium with the hope of relieving the more distressing symptoms.

Mr. Hulke introduced a fine trocar, to the depth of about half an inch, in the fourth intercostal space, about half an inch to the left of the sternum.

On removing the trocar, a gush of dark blood issued from the canula, and the instrument was felt to be moved in accordance with the action of the heart. The canula was almost immediately withdrawn, not more than about a drachm of blood having been removed. During the operation, no change appeared in the pulse; after it, she said she felt relieved; and that night was the best she had passed since her admission into hospital. For the next few days she seemed better, the dulness gradually diminishing. At the time of operation, she had signs of pleuro-pneumonia of the right lung, and there was some fluid effusion in the right pleural cavity, and later in the left.

After improving in general condition for a week or two, she gradually succumbed to general œdema, four weeks after the operation. It was decidedly the opinion of those present at the operation that the trocar was inserted into the right ventricle. At the post-mortem examination, the heart was found to be extremely enlarged, with an universally adherent pericardium, the adhesions being evidently of considerable age. The interest in the case lay in the fact that the (presumed) puncture of the right ventricle not only led to no ill results, but apparently gave temporary relief in a perfectly hopeless case; and it also illustrated the difficulty of diagnosing between pericardial effusion and an extremely and rapidly dilated right heart.

No cicatrix in the substance of the heart or on the inner wall of the ventricle could be found.

Mr. Hulke said that there was no doubt that the trocar entered the heart. Another time, he said, he should prefer to connect the needle with some kind of exhausting chamber, and to push it in very slowly; one might then stop immediately fluid appeared.—*British Medical Journal*, May 29, 1875.

Double Fistula in Ano; Treatment by the Knife and Elastic Ligature.—At a recent meeting of the Clinical Society of London, Mr. Maunder reported the above case, as a test of the relative value of the elastic ligature, recommended by Mr. Allingham, as compared with the knife. The patient was a female, twenty-four years of age, in whom a fistula had formed in the right side of the anus from abscess of the buttock, and a year later a similar one formed on the left side. The two sinuses were almost exactly alike, both as regards position and direction, and therefore well adapted for the comparative trial. The right was laid open with the knife, and dressed with oiled lint, and the left treated with the ligature. On the ligatured side there was much pain, but scarcely any, on the right side, the knife wound healing rapidly. The ligature came away on the ninth day, leaving a wound with callous prominent edges, which did not cicatrize until five weeks after the side treated by the knife, although in the latter the lint had been left in place forty-eight hours longer than usual. Mr. Maunder believed that the ligature should only be used in those cases where there is objection to a cutting operation, and in those who are the subjects of a hemorrhagic diathesis.

In the discussion which followed, Mr. Heath said that where the fistula was seated high up, in order to avoid hemorrhage, it would be more prudent to use the elastic ligature or a similar method, *e.g.*, Mr. Luke's (the use of an ordinary ligature, daily tightened). Mr. Hutchinson could confirm Mr. Maunder's statement as to the slowness of healing after the use of the ligature. Mr. Hulke had never used the ligature himself, but had seen it employed in three cases, but the extreme pain and the slow progress made in each case had convinced him of the inferiority of the method.

Mr. Thomas Smith had twice tried the elastic ligature, the result being that he would never resort to it again, unless prevented by very good reasons from using the knife.—*The Lancet*, June 5, 1875.

Verruca Senilis.—Under the name of verruca senilis Neumann describes an affection of the skin peculiar to old people, showing itself in the shape of numerous wart-like tumors on the back and breast. These are of a rusty brown or black color, and may become excoriated and ulcerated from the friction of the clothes. They are composed of layers of accumulated epidermic cells, formed upon a smooth surface, or upon the remnants of the papillæ. Under the microscope the epidermis shows nothing abnormal, the rete Malpighii is shrunken, and it and the adventitia of the vessels show an accumulation of pigment in their cells, while the hair-follicles have become rounded formations, containing horny cells, smegma, and woolly hairs. The sebaceous glands are enlarged and filled with a dried secretion from their orifices being closed so that they also resemble pale-red, wart-like tumors. Verruca senilis is distinguished from the common wart by its not involving the papillæ, but only the epidermal tissues, whence the propriety of the name keratosis pigmentosa. The treatment recommended is green soap, or painting with iodine in glycerine, or with a dilute solution of carbolic acid, or they may be scraped away with Daniell's spoon.—*Wiener Med. Presse*, No. 13, 1875.—*Berl. Klin. Woch.*, May 24, 1875.

Ovulation without Menstruation.—At a late meeting of the Obstetrical Society of Edinburgh, Dr. James Young mentioned the following interesting case as an example of ovulation without menstruation. The lady referred to was married on the 13th of June, 1867, at the age of twenty-five years. She menstruated on the 13th of July, and her first child was born on the 4th of April, 1868. The patient stated that she nursed the child thirteen months, and then menstruated six times—till November, 1869. The second child was born on the 15th of August, 1870, was nursed five months, when the baby died. From November, 1869, until January, 1875, the patient had never menstruated; during that period a third child was born, 31st October, 1871, while a fourth child was born on 12th September, 1873, and a fifth pregnancy was then going on, each child having been nursed twelve months.—*Obstetrical Journal*, Apr. 1875.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor

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SPECIALISM AS A PRACTICE.

The success of specialism has turned the heads of half the rising generation of medical men. It seems with them to be an accepted fact, that not to be a specialist of some sort is to be nothing. The consequence is, the ranks of specialism are already very much crowded. The different departments of the grand army of medicine are so well commanded that we are getting more officers than men. Specialism, like every other good thing, is well enough in its place; but when it is liable to swallow up every other interest in medicine, the enthusiasm which begets such a disposition stands in need of some reasonable check. A quarter of a century ago a devotion to the study of a particular branch in medicine met with such opposition, that ostracism from the profession was one of the mild means of punishment proposed; the right of representation in the American Medical Association was questioned; in fact, the exclusive practice of a specialty was considered such a violation of the principles of scientific medicine, that the one who dared to defend such a course risked his reputation for respectability, and invited aspersions upon his professional integrity. This was one extreme which prepared the way for the reaction which is now upon us.

Specialism, as a study, has been of an incalculable benefit to scientific medicine in stimulating investigation, in enlarging our means of observation, in perfecting our knowledge of diseases previously but little understood, and in rendering more exact our methods of treatment. So far, so good. On the other hand, however, it has encouraged a spirit of transcendentalism, which has had a marked and dangerous antagonism towards the best-directed efforts of pioneer investigators. It is not our purpose, however, to discuss the relative merits of specialism and general medicine at this time, but to refer more particularly to some of its effects upon general practice.

The practice of a specialty being considered the *sine quâ non* of success, it is perfectly natural that numbers espouse the course. One of the conditions of such a course is the exclusive devotion to the particular branch of medicine that is chosen. As very often happens, when the enthusiasm gets the better of judgment, when the proper relations of demand and supply are not carefully considered, we sometimes have more workers than work. We may not have arrived at that point as yet, but we are certainly near enough to it to view the situation from a common-sense standpoint. Already a failure to succeed is being foreshadowed to some of the most enthusiastic devotees of specialism, and we shall not wait very long to see this number increasing. The fact is, the field is very limited; necessarily it must be so. These gentlemen have to depend, for the most part, upon consultation with their medical brethren; and unless the specialist has a transcendent reputation his chances of such patronage are not very encouraging. A few of the leading specialists get all of the best cases, receive the largest fees, and, consequently, prosper pecuniarily and professionally; while those of lesser reputation, whether equally capable or not, must be content with what they can get.

One of the natural consequences of such a condition of things is, a determination to get the desirable reputation. This is certainly a very laudable object, and if it did not affect any other interest than that of the general progress of our art, it would be well. The difficulty, however, is that the personal element enters too largely into the struggle. Facilities for study and experience must be obtained at any cost, college clinics must be supported, patients must be secured for private dispensaries, and interesting cases must be treated for nothing, if they cannot be procured otherwise; papers must be read before societies, for the purpose of informing the general practitioners of the progress made in a particular branch, and of impressing them with the idea of the capabilities and experience of the writer. All of these means are considered legitimate, and are, consequently, tolerated. But it is one thing to supply a demand and another thing to create a demand. The latter is certainly the hardest part of the task which the struggling specialist now takes upon himself. It is with him such a primary consideration that everything must bend to it. If we view this matter in reference to its effects upon the general practice of medicine, we have much food for reflection. We believe it to be a perfectly legitimate conclusion that the specialists are increasing far beyond a reasonable demand for their services; that in the majority of instances a great deal of very desirable talent is drifting, pecuniarily and professionally, to a very unprofitable account. The struggle, too, to develop opportunities for success is oftentimes liable to sacrifice other and more important interests. For instance, the multiplication of medical charities and their consequent abuse is more or less chargeable to a determination to develop specialties. The eagerness to obtain a particular class of patients is oftentimes so great that not only are medical services bestowed upon people well able to pay for them, but a premium is offered to them for the privilege. This is an old story, but a true one; and many of these progressive gentlemen are unconsciously doing an irreparable injury to their brethren, by cheapening medical services for the purpose of gaining an increased experience. In many instances their capital is drawn from the livelihood of such of their brethren as are expected to support them by consultations.

Again, not only is talent, in many cases, misdirected, but the legitimate claims of general practice are ignored. In fact, if this fashionable tendency continues, we shall by-and-by look in vain for the good old family practitioner. And, after all, is it not time that some of the professional energy that is wasting, in the expectancy of a more substantial success in specialism, shall be turned in the direction of general practice?

RELIGION AND SCIENCE.

A sect called "The Peculiar People," are just now attracting considerable public attention in Great Britain on account of a belief which they have in regard to the efficacy of prayer as a curative agent, they having held to their doctrine to the exclusion of more material aid in the shape of legitimate medication. A number of these misguided enthusiasts are now awaiting trial in England on commitment for manslaughter, for not calling in medical aid when members of their body were sick. It is alleged that numerous deaths have occurred in consequence of this neglect, and hence the charge of wilful crime. But what is stranger than all is, that this sect has resolved to put to practical test the question whether medical aid is really a necessity, or whether prayer is not sufficiently efficacious in all cases of sickness. We are all willing to admit the aid which moral treatment affords in the healing of the sick, but we are not yet ready to trust to it in the reduction of a dislocation, the delivery of a fœtus through a contracted pelvis, or in any other of those emergencies which sometimes cause anxiety to the most expert practitioner. "The Peculiar People" appear to be willing to argue the question. and the points which they make will at least have the charm of originality.

THE HARLEM FLATS.

The utility of agitating a sanitary question, and the results growing out of it, are exemplified in the recent decision concerning the Harlem Flats nuisance. The protests of the Medical Faculty of that neighborhood, and the solicitations of the Board of Health, have been rewarded by an appropriation of over twenty-one thousand dollars for the proper filling in of these lots. This is hardly half of the amount asked for by the Health Board, but it is sufficient for a good beginning.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 26th, 1875.

Dr. F. Delafield, President, in the Chair.

ANOMALOUS DISEASE OF THE STOMACH.

Dr. Delafield presented a stomach removed from a patient who was admitted to Bellevue Hospital on one day, and who died the next. Nothing could be learned of her previous history. Her most marked symptom was vomiting. The house-physician had succeeded in making a correct diagnosis, but upon what ground it was not known.

At the autopsy the peritoneal cavity contained a large amount of pretty clear serum, while the peritoneum everywhere was considerably thickened, the result of chronic bronchitis. The stomach was very much altered, its walls being much thickened. particularly posteriorly. Close to the œsophageal orifice was a tumor as large as a hen's egg projecting into the cavity of the stomach. The surface of this tumor presented no marks of ulceration, nor was there any ulceration in any part of the mucous membrane of the organs. There were no enlarged glands in the neighborhood of the stomach, no secondary tumor in the liver, nor anywhere else in the neighborhood. The disease was limited entirely to the stomach, and was of a character very difficult to name and classify. The microscopical examination showed a new growth to be almost entirely composed of connective tissue. There are cells present, but not in any great number; some polygonal cells as in true cancer, but no characteristic alveolar arrangement, and no ulceration.

Dr. Delafield remarked that he had met with this form a number of times, and although he had been accustomed to calling it cancer, he nevertheless had doubts as to whether that name was applicable. An additional reason for this belief is, that there are no secondary tumors. Yet, on the other hand, we should remember that we find cancer in other regions in which we cannot say that we find any cancerous structure, but in which all the other characters of the disease are present.

PYÆMIA.

Dr. Jacobi presented a specimen removed from a woman who had been a patient of Bellevue Hospital. She was admitted, a number of weeks ago, with erysipelas of the face, for which she was treated with local applications of carbolic and oleinic acids. After her recovery from this she had another attack, which spread to her scalp, and was attended with abscesses in that locality, and also in the right axilla. Incisions were made and a considerable amount of matter evacuated. From that time a large number of abscesses appeared in the scalp, and were duly opened, the after-treatment, as in the axillary abscess, consisting of local applications of carbolic acid. When the abscesses were opened in one locality they would make their appearance in another, clearly indicating that they were due to pyæmic influences. After the second attack of erysipelas had entirely disappeared, and her temperature had gone down, she had a third attack, which lasted a considerable period. The local application of carbolic and oleinic acids prevented the spread beyond its seat in the face. At that time the first deposit of pus was noticed in the neighborhood of the left knee. A few days afterward a soft swelling was found in the neighborhood of the right knee, and a few days after in the neighborhood of the right elbow-joint. Thus the diagnosis of pyæmic poisoning was corroborated.

During each of her erysipelatous attacks her temperature ranged from 104½° F. to 107° F.—indeed, she bore this high temperature for a very long period, despite the free administration of quinine, salicylic acid, and tincture muriate of iron. Nothing except cool bathing seemed to have any direct influence upon that symptom.

She died May 25. At the autopsy abscesses were found in the scalp, right axilla, in both knee-joints, also in right elbow-joint. No pyæmic abscesses were found in the uterus. On incising the right ovary a cyst was found containing a quantity of decomposed blood. The left ovary also contained a cyst of smaller size, filled with a yellowish liquid. It appeared that a large part of the ovary was used to make up the cyst. Both these cysts seemed to be the results of rupture of the Graafian follicles in the interior of the ovary.

There were also a few cysts found in Douglas's cul-de-sac, attached to the peritoneum, and in the immediate neighborhood of a few large blood-vessels. Dr. Jacobi thought that these cysts might have resulted from localized inflammation, causing fibrinous deposits, and that the exudation might have taken place underneath them, in the same manner as cystic formations will take place in consequence of repeated attacks of pachymeningitis. It might also be possible that the epiploic appendages were deprived of their fat, and in its place the effusion had taken place.

EMBOLISM.

Dr. Jacobi presented some specimens removed from a man who was in Bellevue but a few hours with all the objective and some of the subjective symptoms of pleuro-pneumonia. At the autopsy there was found extensive pneumonia, empyema, and a thickened pleura. In the other lung there was an immense hemorrhagic infarctus in the lower lobe. Nothing was known of his history. The only old lesion that could be found upon him was a small ulceration a little behind and above the internal malleolus of the right foot. The valves of the heart were perfectly sound. In the spleen was an immense infarctus of a more recent date than that found in the lung. The liver showed a large infarctus, evidently of a later date, it being in an advanced stage of decomposition. In the absence of another cause for embolism, he was inclined to name the ulceration over the ankle. He had seen cases where local abscesses might give rise to pyæmic poisoning.

Dr. Mason referred to a case which had occurred when he was house-surgeon in Bellevue, and in which pyæmia occurred in a case of delirium tremens from a slight ulceration on the leg.

Dr. Delafield remarked that it was often very difficult to say where an embolism had its origin, as it was not possible to examine every vein in the body.

Adjourned.

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Michigan University.—The Regents of the Michigan University, on the 29th of June, appointed George E. Frothingham, Professor of Ophthalmic and Aural Surgery, and W. J. Herdman, Demonstrator of Anatomy. At the thirty-first commencement, the degree of Doctor of Medicine was conferred upon twelve male and one female graduate.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, June 11th, 1875.

Dr. E. R. Peaslee, President, in the Chair.

DRAINAGE.

The Association listened with interest to remarks made by Gen. Egbert L. Viele, upon the subject of drainage. He had been announced to read a paper upon "House Drainage," but he purposely avoided confining himself to this particular topic, as it bears about the same relation to the general subject of drainage as the space occupied by a fly does to the subject of the globe. The speaker started with the proposition that saturated soil is the principal cause of preventable diseases, and the great element which physicians (especially of this city) have to contend with in their practice. The New York Association of the Board of Health would limit the subject of drainage almost entirely to the work of the plumber, but the field is much wider, and drainage has to do with the dryness of the soil exterior to the premises and also in the cellar. Confining his remarks to the city of New York, the speaker traced upon a map the old water-supplies, swamps, ponds, etc., upon the island, and demonstrated that in many instances these ponds and swamps had been filled, and natural water-courses obstructed, without making proper provisions, indeed no provisions at all in many instances, for drainage. It is an idea which he had found entertained by very many well-informed people that sewerage and drainage are one and the same thing, and that all the drainage necessary can be done by the ordinary sewer. This is a mistaken idea, and he proceeded to demonstrate that, in nearly every instance, the level of the water-courses upon the island is far below the sewer level, in some places as many as twenty feet, rendering it absolutely impossible for the water retained in the soil when these courses are obstructed to be carried off by the sewers. The result has been from obstructing these natural water-courses, which in many instances have their rise in perennial springs, that the soil underneath the houses, in many of the most wealthy portions of the city, is saturated, and is a constant source of disease.

The condition of the Harlem Flats was commented upon at some length in terms of the greatest earnestness and severity, and the opinion expressed that if there ever was reason for a Vigilance Committee there is reason for raising one at the present time, stirring up those men who insist upon filling up these streams without proper drainage for avoiding saturated soil. With regard to those houses which are situated over water-courses having a lower level than the sewers, they are always dangerous to live in. These houses should be supplied with pumps to raise the water from the cellars into the sewer, and in that way they can be made safe dwelling-places.

Cast-iron is the only material fit to be used for soil-pipes. The soil-pipe should always have a ventilation-pipe running parallel to it, connecting with the traps in the soil-pipe upon every story, and should extend to the roof of the house.

With regard to the construction of the water-closet itself, the pan-closet, the one in common use, has certain disadvantages. First, the pan is emptied at an angle and the discharge is against the side of the receiver, and there accumulates a quantity of matter which in turn becomes a source of disease. In addition, the pan itself is not always clean, and when it goes back it strikes the bottom of the closet, and there lodges a quantity of fæcal matter each time. In this way there is constant danger of an accumulation of matter which is destructive to health. These disadvantages, the speaker explained, can be removed by a simple attachment, consisting of a pipe arranged under the bowl and around the exterior of the pan, for the purpose of washing the interior of the receptacle and the exterior of the pan and bowl, and at the same times keeping the lower traps properly supplied with water. The water is discharged from this pipe in jets.

In answer to some questions, the speaker remarked that sewer gas is forced into our dwellings under certain states of the atmosphere, and to overcome this thorough ventilation of the sewers should be established, which can be done by erecting sewer-shafts having induced currents of warm air within them. Such induced currents are readily established by means of gas-lights in the shaft.

A vote of thanks was extended to Gen. Viele for his interesting discourse, after which the Association adjourned.

Correspondence.

HOW TO PREVENT MISTAKES IN PRESCRIBING AND DISPENSING MEDICINES.

To the Editor of the Medical Record.

Sir:—The question has often suggested itself to my mind, In what way can the physician and druggist insure the utmost possible safety to the patient in taking the medicine that the one has prescribed and the other prepared? It is, of course, the great desideratum of physicians in prescribing, and in the druggist in compounding, to have the prescriptions accurately and *safely* prepared; but in many cases it does not by any means follow, that because the prescription is accurately prepared, that it is safe to administer the medicine as prescribed. It often occurs that a prescription which has been prepared strictly according to the directions of the physician, would be attended with unhappy, and perhaps fatal results if administered to the patient. The principal object of the physician, the druggist, and the patient is to have the medicine prepared with the greatest care from the best and purest material, and when that has been done, the functions of the druggist cease, and he has apparently no farther connection with the case; yet, if any error has been made by the doctor, either by overdosing or by ordering the wrong article in prescribing, and harm comes therefrom to the patient, the druggist is equally held to blame, although he may have dispensed exactly as the physician directed, who alone should be held responsible, *unless* he, in prescribing, wrote the directions on the prescriptions, thereby showing the druggist just how the medicine was to be used, and in what doses, thus giving him an opportunity to correct whatever errors the physician may have made in the prescription. The druggist who would dispense a fatal or overdose in such a prescription would be much more to blame than the physician who ordered it, as such a case would be the result of either his own gross ignorance or carelessness. Now, in order to prevent as far as possible all errors, what system or plan is there in prescribing, which, if adopted by physicians, will be most conducive to the mutual safety and protection of the three parties concerned, viz., the physician, patient, and druggist? Having had considerable experience in dispensing, and being daily called upon to scrutinize a large number of prescriptions, I can safely say, as a practical result of such experience, that the nearest and most complete approach to perfect safety attainable by human foresight and care, is by the physicians plainly writing on each prescription the directions for its use. By using this simple caution any competent druggist in dispensing the medicine would see at a glance if an error, either in overdosing or in giving the wrong article, had occurred, and would be able to remedy it. In fact, a good druggist will guarantee the physician against *all* errors, provided the directions accompany each recipe. Indeed, the physician, wearied by his labors, and harassed by his cares and great responsibilities, has a right to expect of the druggist such caution and vigilance that all mistakes will be detected and corrected; but in order to do this he must have the directions for the use of the medicines.

Many physicians, in prescribing the most powerful and dangerous remedies, merely give verbal instructions to the patient or nurse, simply directing the druggist to label the medicine, "Use as directed." This is a dangerous practice, and much harm is liable to result from it. In such cases the druggist, not knowing how the medicine is to be used, is powerless to prevent evil; and if the physician has made an error in writing his prescription, injury, and perhaps death to the patient follows, all of which might have been avoided by simply writing the directions on the prescription.

To illustrate the foregoing remarks, I append several prescriptions that have come under my personal observation. A lady brought to my pharmacy the following prescription: ℞ "Acid Hydrocyan Dil ℥ j." "Sig use as directed." The large quantity called for of such a powerful poison first excited my suspicion, and on questioning the patient as to how it was to be used, she replied that she was to take thirty drops of it three times a day in water. Telling her that it would take some time to prepare the medicine, I sent the recipe to the physician, who immediately destroyed it, and wrote instead, "Acid Hydrochloric Dil." If I had dispensed this without inquiry, or sending it to the doctor, death would have resulted from its use, and I certainly would have been to blame, for under no circumstance should a druggist dispense such a dangerous medicine, without first positively knowing how it is going to be used. This recipe was brought in by a servant for dispensing:

℞ Bismuth subnit............	gr. x.
Morphine sulph...........	" ij.
M. ft. pulv.	

With no directions and no signature, I could get no information as to how it was to be used; and fearing that it might produce fatal results if taken in one dose, I refused to dispense it. I afterwards learned that the physician was very angry with me, and that he sent the prescription to another store, where it was dispensed. Thus, by my caution, which perhaps in this case bordered on timidity, I lost the good-will of the doctor; but it was so easy to assure the positive safety of the patient, that for that purpose I felt justified in returning the recipe for revision, but unfortunately for me the physician thought that I exceeded my duties.

In emergent cases physicians often prescribe heroic doses of powerful medicines, and the apothecary, not knowing under what circumstances the prescription was written, is afraid to dispense it, and sends it back to the physician for revision. In this way not only much valuable time is lost to the patient, but the physician is often offended. It would be but strict justice to all parties if the physician alone was held responsible for his prescriptions, provided, of course, that they are dispensed strictly as ordered; but unfortunately for the druggist, an unthinking public holds him equally responsible for all mistakes, without knowing or caring whether they are his or the physician's, consequently the druggist, in order to preserve his own reputation and to insure as far as possible the safety of the patient, has to be exceedingly careful, even at the risk of offending the physician. The following prescription, it will be observed, bore the directions for its use:

℞ Potass bichrom. .... ʒ ij.
  Aq. pura .... ℥ ij.
M. ft. mist. Sig. Teaspoonful every two hours.

Intuitively I knew that this was wrong, and turning to the dispensatory I found that the dose of bichromate of potash was one-eighth (⅛) of a grain once a day. On sending the prescription to the physician, he crossed out the word bichromate, and wrote bromide instead. In this case, by my caution, which with all druggists becomes habitual, I saved a delicate invalid from great injury, and probably death.

I will give but one more illustration. I dispensed this recipe, together with two others—one a mixture, the other a powder—for a laboring man:

℞ Ext. belladon. fl.... .... ʒ vi.

No directions. I marked it: "This medicine to be used with care," and sent it with the others to his house. By mistake his nurse gave him a teaspoonful of the belladonna. It was only by the great exertions of a physician that his life was saved. If this medicine had been marked "poison," or "for external use," this would not have happened. In this case the doctor had given verbal directions for only this one of the three prescriptions, and it was to be used externally.

Physicians would be surprised to see the vast numbers of errors constantly made by members of the profession in writing their prescriptions. Scarcely a day passes that I don't have to send one or more back for correction. Often the number of pills or powders wanted is omitted, or the quantities of the different materials are not stated, or some other mistake, perhaps slight in itself, but still sufficient to prevent the dispensing of the prescription. To hunt up the physician and get the errors rectified takes time, and in all such cases the patient blames the druggist for the delay in sending the medicine, little thinking that but for his care he might be suffering grievously from the mistakes of the physician. The apothecary, fully appreciating the responsibilities of his profession, and realizing that the health and life of the patient is in his hands, is ever on the alert to detect errors; and to-day many a patient owes his life, and many a physician his reputation, solely to the ceaseless care and untiring vigilance of the apothecary. Numbers of our best physicians will bear personal testimony to the truth of this statement. The relations existing between the physician and apothecary are much more intimate and confidential than formerly. Both see how mutually dependent each one often is on the other, and both should also see how little consideration is paid either of them, should they by chance make a single fatal mistake. In such cases the public and the press regard them as a common foe. To both physician and apothecary (and probably to the patient also) such an occurrence is very unfortunate; but to the apothecary in particular it is in the highest degree calamitous, and a single fatal mistake will sweep away in a moment the reputation of a lifetime, which had been acquired only by the hardest work, closest confinement, and most strict attention to business. Besides this, he is cast into prison, his name is published far and wide, and his business ruined. Finally, he is generally mulcted heavily in a suit for damages. In addition to the above, an editor suggested in his paper (*The Express*) that hanging would be a proper punishment for careless druggists who make mistakes, and this suggestion is but a fair reflection of the public feeling on the subject. Therefore it ought to follow, that where the risk is so great and the punishment so severe, the parties responsible should use all human precaution to prevent fatal mistakes, which, once made, will send one of the parties to the grave, and the other to prison and the almshouse. To my mind, as before stated, the best way to secure this desired result is for the physician in all cases to plainly write on each prescription the directions for the use of the medicine. When this has been done, a long step towards perfect safety has been attained; and only the druggist should be held responsible for any error that may occur, either by overdosing or the wrong article being prescribed.

In closing this article I will once more quote from the druggists' friend (*i.e.*, Mr. Brooks), who, in *The Evening Express* of April 13th, in commenting on a recent case which considerably excited the public mind, very forcibly said that, "druggists should not give out any prescription except upon a written order of a responsible physician, and physicians should give written orders as to the use of the medicines they prescribe." This is the whole matter in a nutshell.

Yours, etc.,
T. H. Sayre,
Dispensing Chemist.

BROMIDE OF POTASSIUM IN STRYCHNINE POISONING.

To the Editor of The Medical Record.

Sir:—Thinking the following might be of some interest to the profession, I take this opportunity of presenting it:

Mr. T., a farmer, twenty-five years of age, of temperate habits, while suffering from mental aberration, procured on the 18th inst. twelve grains of strychnia, representing to the apothecary that he wished to poison some rats. Returning home he retired as usual. About five o'clock on the next morning he arose, mixed half the quantity of strychnia in a cup of water, and drank it. His mother hearing him, and mistrusting from some unusual action that all was not right, hastily arose and soon drew from him the confession that he had swallowed "poison" with suicidal intent. I was summoned immediately, first seeing him one-half hour after he had swallowed the potion. I found him in bed, lying upon his back, unable to move his arms or legs, his head drawn back and jaws quite stiff; yet his intellect, so far as I could discover, was perfectly clear. He answered my questions in a manner which led me to suppose he understood them, and said he had taken strychnine. I put my hand upon his head, and immediately there occurred a spasm, resembling the shock one exhibits from a sudden and intense discharge from an electric battery. These shocks or spasms could be produced at will as often as any one touched him, and were repeated from every two to four minutes, whether he was disturbed or not.

Mixing a dessertspoonful of powdered mustard in some water, and adding a drachm of Squibb's fluid extract of ipecac, I succeeded, after some perseverance, in the midst of successive spasms, in getting him to swallow all of it. Emesis occurred in about ten minutes, the spasms being full as free as the emesis. He drank nearly a quart of warm water. This was also freely vomited. After the vomiting, the spasms still continuing, I gave twenty grains of bromide of potash. He immediately exhibited the most profuse perspiration I ever beheld. I thought him dying. In fifteen minutes more I exhibited another fifteen grains of the bromide. This I repeated every fifteen minutes till one hundred grains had been taken, and the spasms had gradually subsided and now entirely ceased. I ordered the bromide each two hours after, and left him feeling quite comfortable.

On seeing him the next day he complained of nothing but soreness of the muscles generally. Said he felt as though he had been skating on the ice. He recovered from this slowly, and now is apparently as well as before the drug was taken.

My reason for using the bromide instead of the remedies usually recommended was, that it seemed to be the only medicine I had at hand indicated rationally from his condition, having neglected the precaution to take chloroform or ether with me, or other things used to control spasms or to act as an antidote.

From the result of this case I conclude that bromide of potassium may prove to be a serviceable remedy in such cases.

David Dana Spear, M.D.

Freeport, Md., *May* 25, 1875.

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DR. ANTONIO LUACES.

To the Editor of The Medical Record.

My Dear Doctor:—Some of your readers must have been pained on seeing in a recent morning paper a notice of the execution of Dr. Antonio Luaces by the Spanish authorities in Cuba. A few particulars of his untimely death having reached me, I ask you to publish them, and a word of tribute to his memory will doubtless find a response in many hearts.

Dr. Luaces went to Cuba with General Jordan's expedition, and has ever since been in the medical service of the Cuban army. After the death of General Agramonte, some three years ago, he was made Surgeon-General.

On the 20th of last April, while on sick leave near Puerto Principe, he was betrayed by a spy and was taken into his native city by a guard of Spanish soldiers sent out for the purpose.

As his family was influential there, and as his professional skill had not discriminated between friend and foe, petitions from many sources, especially from benevolent and religious societies, were forwarded to the authorities praying that at least his life be spared. He was, however, shot on the 22d of April, two days after his capture, the only concession to his character and profession being that they fired at his breast instead of at his back (their usual custom with "insurgents"). They say he died bravely, as of course he did, for he was brave by nature, and had chosen his path deliberately. He was buried in the cemetery of the city with the dead of his family.

Dr. Luaces began the study of medicine in the office of Dr. James R. Wood; graduated with honor at the Bellevue Hospital College in 1865, I think; was on the staff of Bellevue for the usual time; spent two years in Paris taking special courses and walking the hospitals, and afterwards went to Spain, and passed a successful examination for his Spanish diploma.

As his advantages had been unusual, so his professional accomplishments were of the highest order. He was remarkably handsome and manly in appearance, dignified and cordial in manner, sincere in heart, by necessity above all littleness, and a warm and loyal friend.

W. DeF. D.

56 East Thirty-Fourth Street.

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MEDICAL ADVERTISING.

To the Editor of The Medical Record.

Sir: It is a common practice in some parts of the country for surgeons to invite to their operations at least one layman, and frequently a number, who invariably report the cases to newspaper-men, and in this indirect way advertise themselves as enterprising surgeons, dexterous operators, experts in their profession, qualified for any and everything in their particular line, etc., etc. Comparatively small operations are described as being formidable, and seldom performed except in the older cities, as New York and Philadelphia. Does the above course constitute advertising? To my mind it does, and the man who will pursue such a course, in the opinion of the writer, is as bad, if not worse, because more crafty, than the one who signs his advertisements and pays for their publication. If you do not think this subject already exhausted, by giving these lines a passing notice in The Record you may turn some from the error of their ways, and will strike a powerful blow at cunning (?) advertising in some parts.

M. D.

New York City, *June 12th*, 1875.

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ALIMENTATION IN INTESTINAL DISORDERS OF INFANTS.

To the Editor of the Medical Record.

My Dear Doctor: In The Record of June 5th (No. 239) you did me the honor of publishing a very full report of a paper which I read on May 13, 1875, before the Medical Library and Journal Association, on "The Relation of Alimentation to the Gastro-intestinal Disorders of Infants and Young Children." Excellent as the report is, especially considering that the reporter had no access to my manuscript, yet a few errors have crept in, which, though I wish they had not occurred, I yet will not trouble you by asking a correction of all of them, but only of the two subjoined, which, if left as at present, accredit opinions to me I do not wish to father. Page 395, 1st column, 13th line from the top, should read, "absolute rest for six, ten, or even twelve hours."

Again, on same page, 2d column, 2d paragraph, 7th line from top, should read, "it is *erroneously considered* altogether dependent upon that process." As my paper will appear in full in the August issue of *The American Journal of Obstetrics*, etc, I would refer such as may desire to read it, to the latter journal.

With regard, very truly yours,
B. F. Dawson.

8 E. 15th Street, *June* 25, 1875.

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University of Pennsylvania.—At the Commencement of this University, on the 24th of June, the Honorary Degree of Doctor in Medicine was conferred upon J. Sartoris Giltner, and W. Paris Dale Giltner, and the following Doctors in Medicine received the additional Degree of Doctor of Philosophy:—B. Franklin Lautenbach, Harry M. Stelwagen, Louis E. Gilliard, J. A. Ogden, Andrew McFarlane, A.M., R. S. McCombs, William H. Winslow, and F. A. Hassler.

HOSPITAL APPOINTMENTS.

To the Editor of The Medical Record.

Sir:—If it is true, as "Veritas" claims, that the hospital appointments are for the honor and profit of a few favored professional men only, the time is ripe for a reform. It appears a plan might be devised whereby the advantages of hospital practice and experience could be made available to all the members of our profession. To make my idea more plain, why cannot it be so arranged that the regular societies will govern the medical and surgical appointments—open to any member that may choose to accept. Some would not care to serve, others would, and the junior physician and surgeon could serve at the same time with the senior. If it is objected that they may not be qualified, as is sometimes urged, they certainly are as qualified to practise in a hospital as they are to conduct a private practice, or belong to a medical society. The letter of "Veritas" is very suggestive, and our profession can, if they will, abolish the present unjust system of hospital appointments.

Justice.

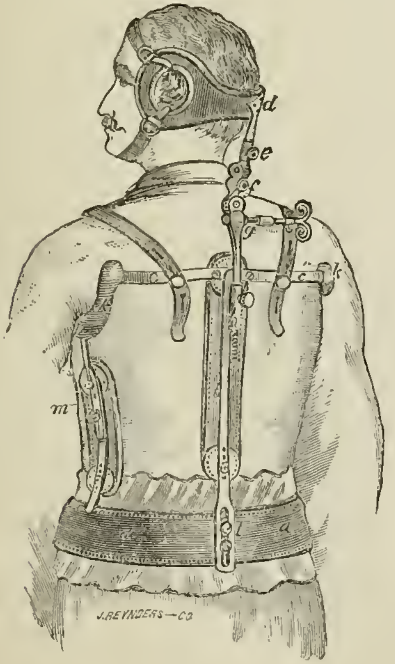
Brooklyn, *June* 21, 1875.

New Instruments.

AN IMPROVED APPARATUS FOR TORTICOLLIS,

Improved by John Reynders & Co., New York.

This apparatus consists of a well-padded pelvic band, *a*, to which an upright steel bar is attached at *l*, passing upwards along the spine to the upper dorsal region.



A cross-bar, *c*, is attached to its upper end, passing from one axilla to the other, and fastened to two crutches, *k*, fitting well under the arm. These are connected to the pelvic band by two lateral bars, *m*, which, by means of a slot and screw, can be raised and lowered somewhat at will. The part of the apparatus so far described is applied firmly to the trunk by means of straps passing over the shoulders and fastened to the axillary cross-bar at *c*, *c*.

A firm hold of the head is secured by a pad (sheet steel inside) reaching almost from the eyes backwards around the skull, with apertures for the ears, and fastened to the head by straps over the forehead and under the chin. To its back part a steel bar is riveted, *d*, which connects the upper part of the apparatus with that applied to the trunk. The lower end of this steel bar is ratched, and is adjusted in a slide at the upper end of the steel rod passing up along the spine, and held in a desired position by a thumbscrew, shown on the figure near the letter *h*. This connecting bar is intercepted by three different joints, *e*, *f*, and *g*, by which flexion can be made in any direction, when worked with a key. At the joint, *e*, rotation, at *f* flexion forward and backward, and at *g* flexion to the right and left, can be made.

The advantage of this apparatus over many others lies in its characteristic point, namely, that firstly a firm hold is secured to the head and trunk, and that then the head can be brought in the proper position by a true and irresistible mechanism. When worn it is almost entirely hidden by the clothing, and patients cannot very easily withdraw themselves from its action.

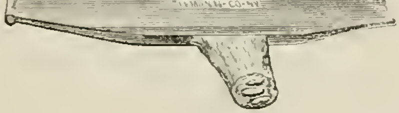
Apparatus similar to this have been made before, but never with all the features of a torticollis brace combined on one apparatus as in this case.

ELASTIC CLAMP FOR SECURING THE FUNIS.

By EZRA R. PULLING, M.D.,

NEW YORK.

The possible occurrence of hemorrhage from the umbilical cord, through loosening of the ligatures, is frequently a source of anxiety to the accoucheur, when he leaves his patient after delivery. Accidents from this cause, if not very frequent, are yet sufficiently formidable to give importance to effective means by which pressure on the cord may be rendered constant under all circumstances. Having this end in view, I have devised an elastic funis clamp, made of a single strip of thin steel doubled on itself, and shaped as shown in the cut, which represents it enclosing a section of the funis. Through the skill of Messrs. Tiemann & Co. it has been rendered safe, effective, simple, and cheap. The opposed surfaces being convex, the pressure is nearly as great when they are approximated as when the separation is considerable. It is clasped and unclasped by sliding the extremities of the arms at *b* past each other.



I have used one of these little instruments in about twenty cases, and it is still in good order. I generally remove it on my second visit, when I find the cord beneath it compressed to the thinness of paper, and the vessels perfectly obliterated. It is very convenient, besides giving such a sense of security that I should be very unwilling to do without it now. Two or more clamps should be carried, one being used to apply temporarily to the placental end of the funis.

April 22, 1875.

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ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from July 4th to July 10th, 1875.

Cooper, George E., Surgeon.—Granted leave of absence for one month and fifteen days, with permission to go beyond the limits of the Division. S. O. 79, Mil. Division of the Pacific, June 25, 1875.

Starrow, S. A., Assistant Surgeon.—Assigned to duty at Benecia Barracks, Cal. S. O. 63, Department of California, June 23, 1875.

Matthews, W., Assistant Surgeon.—Assigned to duty at Alcatraz Island, California. S. O. 63, c. s., Department of California.

The following promotions and appointments in the Army of the U. S., made by the President, are announced:

II. APPOINTMENTS.

Medical Department.

To be Assistant Surgeons, with the rank of First Lieutenant, to date from June 26, 1875: Blair Dabney Taylor, of New York; Curtis Ethelbert Price, of California; James Cheston Worthington, of Maryland; Henry Stuart Turrill, of New Mexico; Edward Tiffin Comegys, of Ohio; Walter Reed, of Virginia; Henry Sayles Kilbourne, of Indian Ty.; James Cushing Merrill, of Massachusetts; William Richardson Hall, of Missouri; Richards Barnett, of Mississippi; Geo. Henry Torney, of Maryland; Louis William Crampton, of Pennsylvania; Joseph Yates Porter, of Florida; Marshall William Wood, of Illinois; Marcus Elvin Taylor, of New York; William Lands Newbands, of California; John de Barth Walbach Gardiner, of Maryland; Robert E. Smith, of Missouri; William Cummings Shannon, of New Hampshire; George Edwin Lord, of Maine: Louis S. Tesson, of Missouri; William Gardiner Spencer, of New York; Roland Lee Rosson, of Virginia. G. O. 69, A. G. O., July 2, 1875.

Dungan, J. S., Medical Inspector.—Ordered to the *Brooklyn*, South Atlantic Station.

Bates, N. L.—Detached from the *Brooklyn* and ordered home.

Dickson, Samuel H., Assistant Surgeon.—Detached from the Naval Hospital at Philadelphia, and ordered to the South Atlantic Station.

Wells, Howard, Assistant Surgeon.—Ordered to the *Worcester*.

Wagoner, James P., Assistant Surgeon.—Detached from the *Worcester* and ordered to the Naval Hospital at Norfolk, Va.

Streets, F. H., Assistant Surgeon.—Detached from the *Narragansett* and awaiting orders.

* * *

Claude Bernard has been unanimously voted the Baly medal by the Royal College of Physicians of England. The day for presenting it is to be the one assigned for the Harveian oration.

Medical Items and News.

The Peculiar People.—This sect, a number of whom are awaiting trial in England, on commitment for manslaughter for not calling in medical aid when members of their body were sick, have resolved to put to practical test the question whether medical aid is really a necessity, or whether prayer alone is not sufficiently efficacious in all cases of sickness. For some time a large twenty-roomed house, situated in Tower Street, on the north-east side of London Fields, formerly used as a homœopathic hospital, has been secured, and the following placard, posted on a large board, displayed: "House of Faith for the Reception of such Sick as are considered Hopelessly Incurable, to be Healed by the Prayer of Faith." This inscription is followed by numerous texts of Scripture.

Dangerous Compound.—*The Pharmaceutical Journal* of Vienna states that the following prescription was sent to a pharmacist: Chromic acid, eight grains; glycerine, one drachm. For external use. The dispenser dissolved the acid with a little water in a phial by a little shaking; the glycerine was then poured in, and the phial again shaken. Thereupon the compound exploded with a very loud report, and was projected with force to the ceiling of the shop. The phial, which did not break, became coated with a black pigment, and remained in the hand of the frightened dispenser. The case deserves attention from the fact that the ingredients were in such small quantities and the explosion so powerful.

Dr. John P. Gray, Superintendent of the New York State Lunatic Asylum, at Utica, has been appointed Professor of Psychological Medicine and Medical Jurisprudence in the Bellevue Hospital Medical College.

Dr. Russel Reynolds and the "Prince Imperial."—A report, started by the *Globe*, is going the rounds of the papers, that Dr. Reynolds was rescued from an impending accident from the running away of his horse on Blackheath by the interposition of the young Napoleon, who seized the horse by the head, and, at the expense of being dragged in the mud, stopped him, and prevented the doctor being thrown off an embankment. Dr. Reynolds says that, so far as he is concerned, he knows nothing of the occurrence described.

Demarquay, the celebrated French surgeon, died on Wednesday, June 23d, of cancer. Surgery is greatly indebted to his ingenuity and talent for the invention of many valuable instruments and operative procedures. During the siege of 1870–1871, Demarquay acted as chief surgeon to the ambulances. He had amassed a large fortune during his professional career, and at his death bequeathed 100,000 francs to the Faculty of Medicine for the purpose of founding an annual prize; 10,000 francs to the friend charged with the publication of his works; the books, pictures, and works of art in his apartment in the Rue Taitbout were distributed as souvenirs among his pupils; and his other property, including his estate at Longueval and 800,000 francs in money, was left to his brother.

Vierling Kersey, M.D., died at Richmond, Indiana, June 3d, 1875, of peritonitis. Dr. Kersey was a highly esteemed member of the profession, and had held prominent positions in the medical societies of his County and State, being president of the latter in 1866. He was a native of Guilford County, North Carolina, where he was born September 8, 1809.

Original Lectures.

THE GENERAL PHYSIOLOGY OF THE MOVEMENTS OF THE BODY.

By J. W. S. Arnold, M.D.,

Professor Physiology University Medical College, N. Y.

Phonographically reported for The Medical Record.

Lecture III.

Gentlemen:—At my last lecture I demonstrated that there is in muscle and nerve an electric current which continues to act as long as the muscle or nerve remains in a living and perfectly healthy condition. So long as the chemical and anatomical integrity is preserved, this current is present, and can be demonstrated. In some of the lower animals there is a special apparatus for generating electricity. This apparatus serves two purposes; first, for the defence of the animal; second, for the capturing of its prey. This electrical apparatus is found particularly in fishes. Among the varieties the torpedo is quite celebrated. There is also the gymnotus (electrical eel), and others. The torpedo has upon either side of the head an apparatus which is situated between the skin of the dorsum and abdomen, and consists of two kidney-shaped bodies. These bodies are made up of from 400 to 1,000 prisms; and these prisms are each subdivided into about 2,000 plates. In this manner there is formed a natural galvanic battery of great power. Between the plates is a considerable quantity of albuminous fluid, and to the under surface of the plates pass a large number of nerve-fibres, arising from two sources. Three or four branches come from the pneumogastric and one from the trigeminus. These nerve connections seem to be necessary to the production of the shock. The shocks are of considerable power; for it has been stated by Humboldt that by a single shock from a full-grown gymnotus a large horse can be killed instantly. If the nerve-supply to this natural battery be cut off, it is found that the fish loses the power of generating the shock; but if the distal end of the nerves be irritated a shock can be generated artificially. That this power is electrical is undoubtedly true, for upon applying the galvanometer as a test, a deflection of the needle takes place; furthermore, a spark can be made to pass between two electrodes in communication with the positive and negative elements of this natural battery. When the nerves are exhausted by repeated irritation, or after a series of shocks in quick succession, the fish loses the power of generating any more until a certain time has elapsed. In the same manner, a nerve, if irritated for a certain length of time, loses its power of conducting impressions, as is also the case with muscle, which under similar circumstances loses its power of contraction. When a muscle is placed in the circuit of the galvanometer, at the instant of contraction a curious phenomenon makes its appearance. This can be best demonstrated by what is called the double muscle preparation * (Fig. 1).

I expose a long piece of nerve, leaving its distribution to the muscles of the leg as perfect as possible [preparation made].

If the muscles be vigorous in their contraction, and the nerve conductibility or power of transmitting a stimulus be in good condition, our experiment will succeed. The nerve of *one leg* is lying upon the *muscles of the second leg.* I irritate the nerve of the *second leg* and a contraction takes place, as you see, in the muscles of *both legs* [experiment repeated three times].

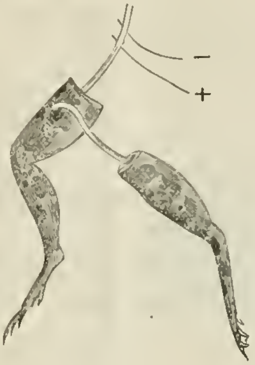

Fig. 1.

This contraction is not due to any electric current from the battery used, to excite the nerve, which passes through the nerve of the second leg, down to its muscles, in this way acting as a stimulant to the nerve of the first leg, because very often, if the second nerve be simply pinched, a contraction will follow in both legs at the same time. What does this show? It shows that the instant a muscle contracts its electrical condition is changed; for if the muscle had been upon the cushions of the galvanometer, and the deflection of the needle noted (for the natural electrical current of the muscle), which is constant, upon contraction of the muscle the needle would pass back towards zero. Should a tetanic condition of the muscle occur, the needle would then remain near zero. This shows, then, that the instant the muscle contracts the electrical current becomes modified, and the needle of the galvanometer passes back towards zero, and there is an effect produced through the nerve upon the muscle known as negative variation. The secondary movement in the second muscle* is called secondary contraction. At the instant of contraction, or series of contractions, another phenomenon may be observed.

I remove the central portion (shaft) of the femur from this frog's leg, so that the bulb of a very sensitive thermometer † may be brought in contact with the largest amount possible of muscle; and place the bulb among the muscles of the leg where the bone is removed. I allow the instrument to remain until the mercury arrives at a fixed degree of temperature. [Experiment made.] The reading is $29\frac{2}{10}^\circ$. I throw the muscles into a tetanic condition by exciting the nerve with the induced current [experiment], and we find that the temperature has risen $\frac{1}{10}$ of a degree. Here is another nerve-muscle preparation which I place in the muscle telegraph‡ with the nerve upon the electrodes of a battery. I close the circuit, thereby passing through the constant current, when a contraction takes place, followed by relaxation. [Experiment.] Keeping the circuit closed there is no motion in the muscle; but, now breaking the circuit, a contraction follows. [Experiment.] So it has been seen that during the period in which the current is passing through a nerve (if there be no variation whatever in the current) there is no movement of the muscle, but upon breaking or making the circuit a contraction takes place instantly. Let us next use the constant current from this small battery,[*] and employ twenty elements, each of which is about the size of a silver half dollar. [Experiment made on nerve-muscle preparation in telegraph.] A contraction takes place on breaking the circuit only. We diminish the number of elements, and contraction then follows on closing the circuit only. Hence we conclude that there is a law which governs the action of the current in order to produce contraction. I will pass the induced current[†] through the nerve. [Experiment.] Notice what occurs. The muscle contracts, and then gradually, or more properly, slowly relaxes, differing materially from the previous contractions and relaxations. This continued contraction is called *tetanus;* it may be produced in various ways. In this instance by the induced current acting upon the nerve.

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* The double muscle preparation for this experiment was made by separating the muscles from the thigh of a frog, leaving the nerve attached to the muscles of the leg. Two such specimens having been completed the nerve of the one was laid upon the muscles of the other, and the nerve of the first irritated by a feeble constant current.

* That which had its nerve lying across the first muscle.

† Very delicate registering instrument.

‡ Muscle telegraph is a piece of apparatus for the purpose of showing the contractions of a muscle.

Should a tracing be taken we would obtain the following form[‡] Fig. 2. The ordinary contraction would be represented thus, Fig. 3. Compare the curve of tetanus. The same quick upward stroke (denoting the rapid shortening of the muscle) is observed, with sometimes greater amplitude, but the curve in tetanus consists of a series of contractions which become fused together, thereby delaying the relaxation. When the muscle is fresh the continued contraction remains for several minutes, but in this case the muscle has become somewhat exhausted from our previous experiments, and therefore the relaxation shows itself rather soon.

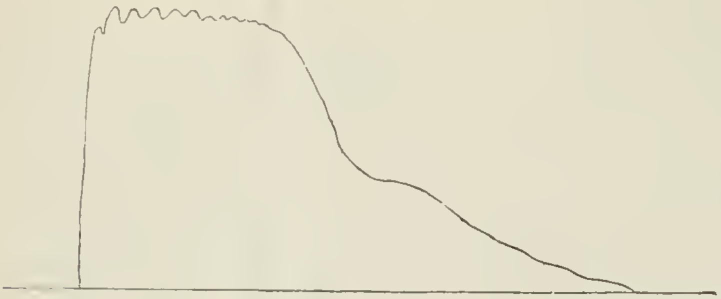

Fig. 2.

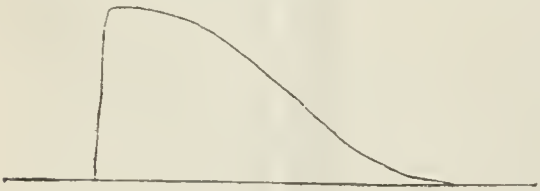

Fig. 3.

Tetanus may be produced by simply plunging the nerve into a salt solution, by heating it, by strychnine—in fact, by any means which gives continued irritation to the nerve or muscle. I now have a fresh nerve-muscle preparation. I dip the nerve into a solution of salt [experiment], and tetanus follows.

We remove the nerve from the solution and allow it to remain undisturbed; the tetanus disappears after a certain time. I dip the nerve once more into the salt solution; you see the tetanus. I now cut off the nerve at the point where the salt is; the tetanus ceases instantly. After a while the muscle loses its power of responding to stimulation (whether the irritant be applied to the muscle itself or the nerve), and is in a condition called exhaustion. If, however, it be allowed to remain quiet for a short time it regains its irritability.

Lecture IV.

Gentlemen:—To-day I wish to demonstrate a very curious law, which leads us to the consideration of all the influences which govern contraction of muscle when the nerve is stimulated. For this purpose I will dissect out a portion of nerve as long as possible, with the muscle attached. [Preparation made.]

What I wish to show you is this: when a constant current is made to pass through a nerve, a peculiar condition is established in the nerve. We already know that while a constant current is passing through a nerve, if the current be perfectly equal and without variation, contraction of the muscle does not occur, and that it only takes place upon making or breaking the circuit. The frog's leg is in this position.[*]

2. If a current be passed so that the positive pole is in that position (*b* in Fig. 4), and the negative here (*a* in Fig. 4), that is, following the direction of the natural flow of nerve-force, and the circuit closed, there follows a contraction [experiment], and then no action whatever. Upon opening the circuit, another contraction, as you see [experiment], and then rest. Suppose I now place upon the nerve a drop of salt solution, at a point between the muscle and negative pole (*a* in Fig. 4). This irritation causes a certain amount of tetanus. [Experiment.] Close the circuit, here is an increase in the tetanus; reverse the current,[†] and now the tetanus is diminished and so continues. [Experiment.] I open the circuit, again tetanus makes its appearance. [Experiment.]

This is simply an illustration of one of the variations which takes place in electrotonus. When a constant current is passing through a nerve, the nerve is modified in three ways. Its excitability is modified, as seen in this experiment; its conducting power is modified; its electro-motor power is changed. As is seen by the diagram, when a weak[‡] current is used, represented by the line (so marked), the negative pole presides over the greater part included between the electrodes. With a medium current the positive and negative poles are equally balanced and preside over equal areas. If a strong current be passed through the nerve, then the positive pole presides over the greater area. As the positive pole, or anode, is opposed in its action to the negative pole, or cathode, the condition produced by the positive pole is called an electrotonus, while that of the negative is termed cathelectrotonus. Electrotonus consists therefore of anelectrotonus plus cathelectrotonus. With a current of medium strength, when anelectrotonus and cathelectrotonus are equal, that is, when the half of the nerve on the side of the negative pole has its excitability raised, and the half on the side of the positive pole has it lowered, there is a point equidistant from the two poles where the excitability is unchanged, and this is called the neutral point. With a strong current the neutral point approaches the negative pole; with a weak one it comes nearer to the positive.

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[*] Trouvé Daniell.

[†] The induced current was obtained from DuBois Reymond's induction apparatus.

[‡] Tracing made.

[*] A frog's leg, with about two inches of nerve attached, was supported on a stand, the femur being fastened in a clamp, so that the rest of the leg remained hanging down. The nerve was placed across zinc wires in connection with a one-cell bichromate potass. battery. The contraction of the muscles could be distinctly seen, as the foot and rest of the leg moved freely.

[†] Change the poles by pole-changer. see Fig. 1.

[‡] Weak current is obtained from one Grove cell; medium from two or three Grove cells; strong from five or six.

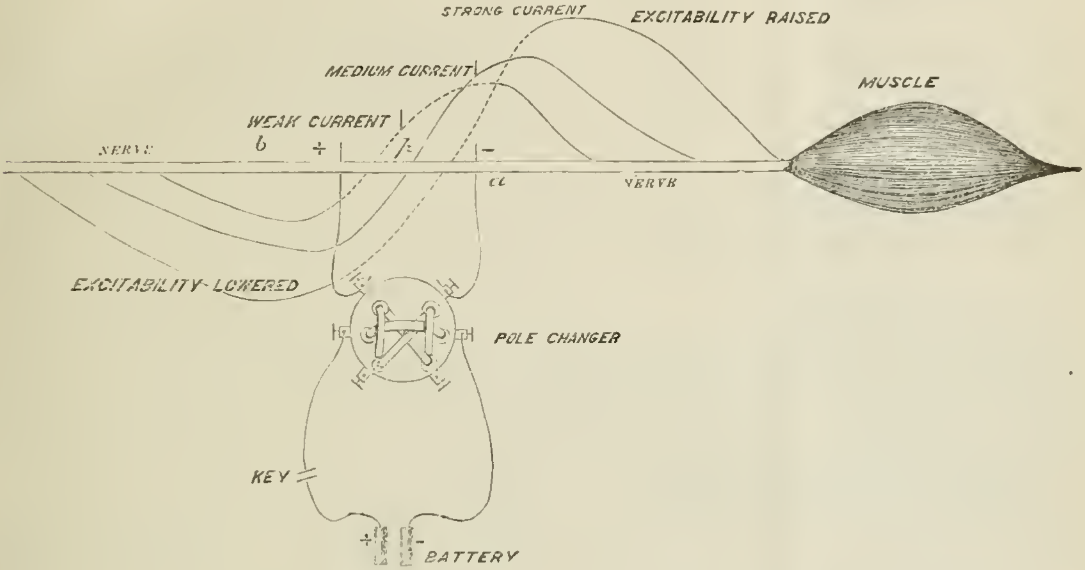

FIG. 4.

Now, when we have anelectrotonus, that is, when the positive pole is in the ascendency, then the excitability of the nerve is diminished, as you see. But on the other hand, if we now place the nerve between the cushions of the galvanometer, note the deflection of the needle, first for the normal current [experiment], and then produce the same condition, *i.e.*, anelectrotonus, for the portion of nerve generating the current, we find the electro-motor power is increased, as shown by the deflection of the needle being greater. Reverse the order, produce the condition of cathelectrotonus [experiment], the needle returns to zero almost, thus demonstrating the decrease of electro-motor power. Had we measured the rapidity of nerve-conduction during our experiment just made, we should have found it increased; in like manner is it decreased by anelectrotonus.

If we send a weak current through a nerve in an upward direction, which is toward the spinal cord, from the periphery to the nerve-centre, a contraction of the muscle shows itself upon closing the circuit only. [Experiment.] As the current passes in an opposite direction along the nerve, contraction follows only when the circuit is opened.*

With a medium current we have strong contraction on making and breaking when the direction is upward, and the same thing for downward. What, then, causes contraction? It is, according to Pflüger, due to the appearance of cathelectrotonus, and disappearance of anelectrotonus. Take the case of a feeble upward current, Fig. 5. Neutral point near + pole, hence cathelectrotonic area is extensive. When the current is closed cathelectrotonus is established at *a*, the nerve excitability is increased, and a contraction of its muscle is effected. On breaking the current, a small portion of the nerve (*b*), near the + pole, passes from anelectrotonus to the normal state, and the nerve is stimulated; the excitability of the nerve, however, is much lowered, from what we have already seen, and therefore the stimulus is too weak to cause contraction.

It makes some difference whether the nerve receives its stimulation close to or at some distance from the muscle. As a rule, the greater the distance from the muscle, the stronger the contraction of the muscle. It is supposed that the reason for this is on account of the accumulated force or irritability of the nerve, being greater as the length of nerve increases; so that a stimulus applied close to the muscle would not produce as much effect as the same at a greater distance. More than probable is it, however, that near the nerve-centres the nerves are more sensitive; as nerve-force is generated here, it makes it easier for the nerve-fibres to carry along the impulse. I wish next to demonstrate to you the non-identity of muscular and nervous irritability. We take a frog and introduce into it a small quantity of woorara. The motor nerves are those affected by this poison. Let us galvanize a motor nerve; we try the crural—no effect shows itself; we try the muscle itself, a contraction is the result. A ligature I now place beneath the nerve of another frog's leg, so as to encircle the leg. In this manner the nerve connection remains intact, and the muscles of the leg are separated from the general circulation by the ligature. I inject into the lymph-pouch of the back a rather strong solution of sulpho-cyanide of potassium. We wait a few moments. I stimulate the muscles of the leg not tied off, *i. e.*, the leg upon which the poisonous sulpho-cyanide has had an opportunity to act. No contraction. Apply the stimulus to the nerve of the tied-off leg—violent contraction follows. [Experiment.

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* Some physiologists have obtained contraction on closing as well as on opening the circuit; this is not to be explained by Pflüger's law.

From these experiments we conclude that muscular and nervous irritability are distinct properties, and can be separated one from the other; the woorara destroying the irritability of the motor nerves, but not interfering with the muscles; the sulpho-cyanide acting upon the muscles themselves, and not upon the nerves.

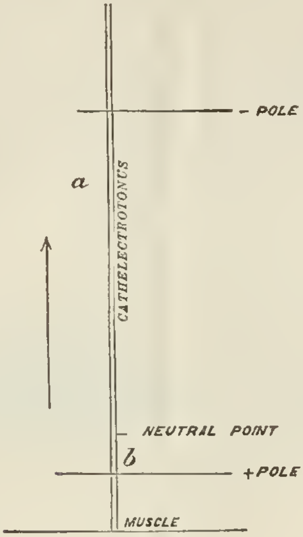

Fig. 5.

Original Communications.

STRANGULATED HERNIA REDUCED BY TAXIS THROUGH COLON.

By ALEXANDER HADDEN, M.D.,

NEW YORK.

The case is as follows: June 13th, 11 P.M., I was called to see Mrs. B——, aged 45 years, the mother of eleven children, a thin, delicate woman of highly nervous temperament.

She was suffering from colic, due to some food she had taken at supper; had not vomited, nor had her bowels moved since morning. I ordered an enema of warm soap-suds to free her colon, and a Magendie's solution of morphia, gtt. x., to subdue pain. The injection relieved her bowels, and the morphia, which was repeated twice during the night, eased the pain, notwithstanding she vomited several times after taking it.

June 14, 10 A.M.—She was quite comfortable; had, however, slight nausea and a little pain; called my attention to a lump in her left groin, about the size of a duck egg, which she said had been there before and had gone away, but this time was harder and more painful. I examined it and found it to be a direct inguinal hernia, hard, tender to the touch, and not reducible, notwithstanding my efforts to reduce it were made while she was fully under the influence of chloroform. When satisfied that it could not be then reduced, I applied ice in a bladder to the part, and waited until the morning of the 16th, watching her condition carefully during this interval of time. I made an effort occasionally to put it back, and did several times reduce its size. Her vomiting during the night had been frequent and of greenish color, and symptoms of strangulation of the circulation of the involved part began to develop. Delay of interference was occasioned by her refusal to have it touched any more, because she was under the impression that it would go away of itself, as it had done before. On being called on the morning of the 16th, at 4.30, I went, accompanied by my student, R. C. Irving, and Drs. D. F. Leavit and P. W. Cremin. A conference was held, and it was resolved that she be again put under the influence of chloroform, and another effort be made to reduce it, which was done at once, and after a fair trial by each of the physicians present without success, hope of relief through such means was abandoned. I then suggested that before we resorted to the knife an effort might be made to reduce the hernia by passing the hand through the rectum into the colon, and endeavoring through its walls to produce traction on the involved intestine sufficient to disengage it. This was approved of, and I accordingly did so and succeeded.

The steps of the operation were as follows: The patient being fully under the influence of chloroform, was placed on her chest and knees, and supported in that position; I next introduced my fingers into the anus, and passed my hand by gentle pressure up into the colon. I had some difficulty in following the intestine over the promontory of the sacrum, but when my hand had passed this point it was very free. I could feel the engorged intestine plainly, and could make traction on it with my fingers, and did carefully, fearing that I might rend it. My manipulations consisted, chiefly, in gently rubbing my finger along the intestine from the inner surface of the ring, and using external taxis with my other hand at the same time.

The desired result was accomplished in about ten or fifteen minutes with comparative ease. There was no omentum involved, as I had been led to think by the boggy feeling of the mass. There seemed to be only thickening of the coats of the strangulated intestine by serous infiltration.

After the reduction I bandaged the patient around the bowels tightly, and put over the hernial opening a firm compress made of a bladder containing ice, covered with a napkin, and gave her a hypodermic injection of ♏v. of Magendie's solution. Her vomiting from this time ceased. She complained very much of pain in the lower part of her bowels for the first twenty-four hours, and a smarting pain in the anus; could not pass her urine except by catheter, which was attributed to her not being able to sit up on a commode.

June 17.—Very comfortable, her bowels had moved freely, and all nausea had passed away.

June 21.—Recovery is quite complete; has only slight soreness in and around the anus. Bowels move every day naturally. Diet prescribed throughout was liquid, chiefly milk, beef-tea, and gruel.

There was nothing remarkable in the treatment of the case other than what has been mentioned. As to the relative merits of this method of reducing a strangulated hernia I can say but little. It might not succeed so well in another case, but it is reasonable to suppose it would, if carefully done. This patient was by no means a favorable one on whom to make the first trial.

155 E. 51st St., New York, *June* 21, 1875.

A Letter written by Harvey has been discovered by Dr. J. H. Aveling among the Clarendon papers, and is, if the memorandum at the back of Dr. Ward's letter be excepted, the only letter in Harvey's own hand known to exist. The letter is to appear in the July number of *The Obstetrical Journal.*

ABSCESS OF THE LIVER AND ITS TREATMENT.

REVIEW OF A CASE REPORTED BY DR. SAYRE IN THE "AMERICAN MEDICAL WEEKLY" OF JUNE 12.

BY WILLIAM CARSON, M.D.,

ONE OF THE PHYSICIANS TO THE CINCINNATI HOSPITAL AND THE GOOD SAMARITAN HOSPITAL.

THERE are some points of great importance besides the personal one in the case of the illustrious patient detailed, as our caption indicates, by Dr. Sayre, of New York.

We assume the correctness of the diagnosis. We believe General B. to have had abscess of the liver.

The pressing question which presents itself is: Was the plan of treatment proposed and executed by the distinguished gentlemen who participated in the consultation the proper one? This question we propose to examine from several points of view, with all due respect to the parties concerned.

Experience shows that the discharge of an hepatic abscess, through the lungs, is the safest one for the patient. Waring,* out of 300 cases collected and analyzed by himself, reports 25 which recovered:

By the abscess opening into and discharging through the bronchi	10
Opening into the colon	7
" " " and another into the lungs	1
" " abdominal cavity	3
" " kidney	2
By spontaneous absorption (?)	2
	25

Thus of 25 cases of recovery by six different routes of discharge, ten, or nearly one-half, were cases of discharge through the lungs.

Analysis of Rouis' cases by Frerichs † shows 39 cases of recovery:

Where the abscess had burst through the abdominal or thoracic wall	17
[Three in last right intercostal space, 13 in epigastric region, below the sternum, and 1 at the umbilicus.]	
Where the abscess opened into the bronchi	15
" " " " stomach	3
" " " transverse colon	4

I have 49 cases, all but two of which are unpublished ones, and the great majority of which occurred in the Ohio Valley. Out of these—

Recoveries have been	10
Through the bronchi	5
" " abdominal walls	3
" " lumbar region	2

The total number of recoveries in the three tables is 74.

Those discharging through the lungs	30
" " " abdominal walls	17
" " " colon	11

The *duration* of Rouis' cases of recovery was:

Where the abscess burst through the thoracic or abdominal walls	140 days.
Through the bronchi	115 "
" " colon	140 "
" " stomach	180 "

Thus the duration of the disease in cases of recovery was 25 days less in the cases where the discharge took place through the bronchi than in those discharging through the thoracic or abdominal walls, or through the colon, and 65 days less than those discharging through the stomach.

This analysis of cases proves that the safest transit of matter is obtained through the lungs, and that the shortest duration of the disease is observed in those cases thus discharging. The presumption was thus, from recorded experience, in favor of non-interference in the case operated upon by Dr. Sayre, with the consent of his colleagues in the consultation, Drs. Desha, Gross, and Blackburn.

We come, then, to the circumstances of the individual case.

The important facts and basis of the diagnosis, as detailed by Dr. Sayre, are comprised in the following extracts from his article:

"We met at 4 P.M.—Desha, Gross, Blackburn, and myself. After a full history from Desha of his case (General B.'s), for the past three months, and from himself of his previous condition, we made a very careful physical examination of his whole body—first by Dr. Gross and then by myself. He was very much emaciated and anæmic, in fact almost bloodless. The feet were very slightly œdematous, which might easily occur from his position (upright) in his anæmic state. There was no effusion in the abdomen; the chest was perfectly resonant and normal *all over the left side.* The same condition in right side, in its *upper* two-thirds. The lower portion of right side dull all round; intercostal spaces rounded out, and on measurement from median line to centre of spine, one inch and seven-eighths larger than opposite. In the upright posture, percussion gave dulness at a fixed line, which was marked with a pencil. [In almost every instance when I put the pencil on him, he remarked, 'That's it,' 'There you are,' 'You are right on the line,' or some similar observation.] On laying him over forward the line of dulness changed position, extending higher in front and more resonant behind and below the line of dulness, when upright, showing that the dulness was from a fluid, and not from consolidation. On shaking him, *no* succussion was obtained, leading us to believe that the fluid was not in the pleural cavity, but deeper seated. Our diagnosis was probably (original) cirrhosis of the liver, subsequent inflammation of lower lobe of right lung, adhesions of liver, diaphragm, and lung, with abscess of liver and lung, which had found an outlet through the bronchi. Death was inevitable, and his only hope of prolonging life, or being comfortable, was by making an outlet below, to save him the effort of coughing up this immense amount of offensive viscid, tarry pus, blood, and mucus, and which Dr. Desha stated had often threatened to suffocate him. After carefully considering the whole case, we all agreed that this was the only chance to make him comfortable, and if successful might prolong his life, but never cure him."

The facts included in this paragraph are: that General B. was in a feeble and anæmic state; that his constitutional condition was a bad one; that the condition of the viscera, except the liver and right lung, was such that they had no causative connection with his prostration; that there was originally cirrhotic inflammation of the liver, which had become suppurative, with final discharge of pus through the bronchi. Possibly his œdematous feet indicated something more than anæmia—damaged kidneys.

There are facts of some importance, which are implied, but not stated explicitly. They are: that these events of violent paroxysms of coughing and quickly succeeding expectoration, or eruptions of matter, had been transpiring for several months; that they had been occurring without disturbing those local relations of the diseased organs which secured the safest method of evacuation of the abscess until the operation; and that during their occurrence, and at the time of the operation, there was such a residuum of vigor as enabled him to endure a rigid examination by Drs. Gross and Sayre, in the upright and other positions, give his own account of his case, and converse in such a way as to call forth the admiration of the gentlemen present. Other evidences of his condition will be found in the account of the operation, such as dressing himself and meeting them in his parlor, and his participation of a very good meal, etc., etc.

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* An Inquiry into some Points connected with Abscess of the Liver, p. 195.

† Clinical Treatise on Diseases of the Liver, p. 133.

We come now more particularly to the diseased tissues and organs, the exact condition of which it was highly important to realize. It was advisable that there should be the clearest apprehension of what existed before the methods of relief was selected, or the effect of any attempt could be anticipated. Hence a physical examination was a matter of the utmost importance. One was made by each of the consultants. The facts of them, as given, are scanty and unsatisfactory, and not correctly interpreted. It was not correct to infer that fluid did not exist in the pleural cavity because the physical sign of succussion was not developed. Succussion may fail, whether much or little fluid exist in the pleura. It would seem that the other fact of the physical examination—that of the mobility of the fluid or the line of dulness determined by it—was exaggerated or overestimated. Confinement of a fluid or pus within the walls of an hepatic abscess, below the diaphragm, which must have been more thickened than usual, and to which a lung more or less condensed was adherent above, would not be apt to allow such variations in percussion sound at the surface of the thoracic wall as to make the physical sign thus developed a reliable guide for a serious operation. This view is confirmed by a comparison of the statements in regard to the first examination and those in regard to the operation. After a copious eruption of "one quart, one pint and a half" of blood, pus, etc., in five hours preceding the first examination, it is stated there was enough remaining to allow the demonstration of the mobile line of dulness on the thoracic wall, while after the tapping, immediately preceding which there had been an eruption of only one and a half pints, the sac could not be reached by any instrument in possession of the operators. Where, too, was the consolidated and adherent lung that must have been more or less involved in this aggregation of inflammatory products, adhesive and inflammatory, that it gave no sign?

The physical examination, then, did not determine the precise locality, extent, or distance of the abscess from the thoracic or abdominal walls—its precise topographical relations were not understood or defined at the time it was proposed to divert its contents by surgical interference.

To the operation itself we next refer. We think we may state that there was no warrant for any interference, whether we consider the more purely local conditions, the vital resistance of the patient, who had sustained the shocks of his severe disease to the extent indicated by incidental facts mentioned in the report, or the general experience of the profession, as our figures show it to be, that discharge through the lung is the most favorable mode of escape.

We quote: "When I arrived I found him dressed and in the parlor, instead of being in bed ready for the operation." "After coughing up a little *over a pint and a half*, he seemed *comfortable;* was put to bed, chloroform administered, and I made an incision one and three-fourths inches in length, along the upper border of the eighth or ninth rib into the pleural cavity; no pus escaped, proving our diagnosis, that the fluid was not in the pleural cavity, was correct. The lung receded before the atmospheric pressure, and the finger passed into the cavity could feel the walls of the diaphragm and adherent lung, but we had no trocar long enough to reach it, and it was decided to wait until the abscess again filled, which would bring its walls near the external opening, and then puncture with the trocar or aspirator."

The object of surgical interference, as stated, was to divert the escaping pus through another channel, so that the danger of suffocation might be avoided. The dependent point was not at the line of the eighth or ninth rib; ordinarily it would be found, probably, somewhere in the epigastric or right hypochondriac regions. Yet there would have been no justification in puncturing these, because there was no physical sign indicating the close proximity of pus, nor was there evidence of the close adhesion of the hepatic substance and abdominal walls, which diminishes or avoids the risk of peritoneal injury and its dangerous consequences. Opening the pleural cavity, which had before been diagnosed as free from fluid, would not secure a successful diversion. Bringing the pus into the pleura, whether through the diaphragm, or lung, or both (it is not clear which it was the intention to do), would add another immense inflammatory and suppurating surface to that already existing in the cavity of the abscess; would be substituting a suppurating surface of immense reproductive capacity for the comparatively non-suppurating tissues of the lung and bronchi; would produce (as it did) collapse of the lung, thus withdrawing the elastic and yet firm support of that organ from the safely-established route of exit, and thus curtailing the resources of an already much crippled patient; would keep up an irritating cough, and would fail of its main and immediate purpose, that of keeping up a free discharge of the pus, because it would (as it did) strike a level above that of the abscess.

The operative procedure was not properly guarded. An opening of an inch and seven-eighths into a cavity like the pleura or abdomen should not be made except upon the most unequivocal evidence; it should have been in this case preceded by exploration with a hypodermic syringe, which can be found everywhere, or the aspirator. These precautions taken to determine the locality of the pus, might have failed, but they would also have prevented the greater failure of making this free incision, and then finding the "objective point" beyond the reach of any instrument which the operators had provided.

If there was in this case a peculiar personal interest, there was and is also a more than individual interest. Abscess of the liver is not an uncommon disease in this country, and the principles and practice involved are therefore matters of general concern. Representative men were responsible for the plan pursued in this case. It is desirable to know whether the precedent is a safe one.

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The Nashville Journal of Medicine and Surgery is to be edited by William T. Briggs, M.D., and Thomas O. Summers, jr., M.D. The former is professor of the principles and practice of surgery, and the latter, professor of anatomy and histology in the medical department of the University of Nashville and Vanderbilt University.

FATAL POISONING BY OIL OF CROTON.

By ROBERT M. DENIG, M.D.,
COLUMBUS, OHIO.

On the 2d of May last, Richard Connett, aged 26 years, a strong, healthy man, took by mistake one-third of a mixture containing—

Oleii croton tig.................... ℥ ij.
Ol. Terebinth...................... ʒ ij.

Complained immediately of a feeling of intense burning in the gastro-intestinal tract, followed in fifteen minutes by copious vomiting. That the matter vomited contained part of the oil was evident from the circumstance that its accidental contact with the person of one of the attendants occasioned marked irritation.

Dejections followed in twenty minutes after mixture was swallowed, and both vomiting and purging continued at frequent intervals until death occurred, which took place at 7.30 P.M. of the same day. Meantime prostration was extreme, resembling collapse of malignant cholera. The discharges, though involuntary, were attended with great suffering. The sense of thirst was very great, and frequent potions of cold water were swallowed until within fifteen minutes of death. The mental faculties were unobscured, though for three hours before death his vision was so much affected that he was unable to recognize acquaintances. Two hours after swallowing the poison a hypodermic injection of morphine was administered, with the apparent effect of mitigating his sufferings. No other treatment was resorted to.

Post-mortem appearances 18 hours after death: Rigor mortis strongly developed. Ecchymosis over depending portions well marked. Pupils dilated. Congestion or hyperæmia of vessels of intestines, as exhibited by their arborescentic appearance through corresponding peritoneum. Mesenteric glands were in a state of chronic enlargement or hypertrophy.

Gastro-intestinal mucous membrane inflamed, as noted by diffuse pink redness throughout, and patches of blood extravasation in the fundus of stomach. Solitary glands of small intestines were marked by pearly appearance; nothing unusual about Peyer's plates. Bladder contained a small quantity of urine; was contracted.

Liver, kidneys, and spleen normal. Lungs in a state of hypostatic congestion. Right side of heart contained a large, firm *ante-mortem* clot. Left ventricle empty; left auricle half-filled with semi-fluid blood. Apart from the heart-clot, which was nearly pure fibrin, and almost entirely free from red globules, there were no other symptoms of sufficient gravity to account for death.

The above case is interesting from the fact that so few fatal cases of poisoning resulting from the administration of this substance are recorded. The person who fell a victim in this instance was but triflingly indisposed, and was in his usual good health the day before his death.

There was no disease present to either complicate the symptoms or obscure the post-mortem revelations. How much the turpentine had to do with intensifying the effects we are unable to say. We believe it is sometimes added to facilitate the rubefacient qualities of the oil of croton. The physician in attendance prescribed two ounces of castor-oil and two drachms of turpentine. The prescription was written in English, with no directions as to whether it was for internal or external use, a verbal order having been left with the patient to take one-third of the mixture. The druggist, in putting up the prescription, mistook the word *castor* for *croton*, consequently the man took about two-thirds of an ounce of *oil of croton*, and the symptoms which followed, as well as the post-mortem appearances, may justly be set down as due to the poisonous effects of the medicine ingested.

In the case reported by Dr. Ellis, of Ashland, Wis., in the *Am. Jour. Med. Sciences* for April, 1874, a little less than two drachms were given in a glass of whiskey, to one who was an habitual drunkard, and intoxicated at the time.

The man vomited but did not purge, and was found next morning not far from the saloon from which he had been ejected, dead,—cold and stiff. The post-mortem, made at 12 M., revealed: Brain, heart, and lungs in healthy condition; no abrasion or discoloration of mucous membrane of the mouth. On opening the cavity of the abdomen the external coat of stomach, duodenum, and several portions of small intestine were found to be of an intensely dark-red color, showing severe inflammation; but no effusion of coagulable lymph was seen. The mucous lining of the stomach, duodenum, and small intestines, corresponding to the external discoloration, was much inflamed, almost disorganized. In the stomach was about half a pint of thin chyme, on the surface of which floated a film of oil having the odor, etc., of croton oil.

It is difficult in this case, as the gentleman who reports the case remarks, to separate the effects of constant alcoholic stimulation from those due to croton oil. It is singular also that no signs of purging were discovered.

In the *Annales d'Hygiene*, tome xxxv., 1871, a fatal case is reported in which a man in an advanced stage of typhoid fever drank through mistake two and a half drachms of croton oil.

Three-quarters of an hour afterward alarming symptoms intervened: skin cold, covered with cold perspiration; pulse almost imperceptible; heart-sounds scarcely audible; respiration very much embarrassed; lips, eyelids, fingers and hands blue, like algid stage of cholera; pupils medium, but insensible to light; abdomen extremely sensitive to touch; fruitless attempts at vomiting, rejecting only some glairy mucus slightly colored with the oil. One hour and a half after the ingestion of the poison involuntary alvine discharges commenced. All these symptoms rapidly intensified, and in four hours after taking the dose death occurred, accompanied with some of the symptoms of asphyxia.

Autopsy revealed only slight softening of the mucous membrane of the stomach and bowels, with numerous ulcers characteristic of typhoid fever.

The same difficulty presents itself here as in the case mentioned above; viz., that of separating the pathological changes due to the fever from those occasioned by the irritating effect of the oil of croton. In the same volume of the *Annales* four non-fatal cases are given, in three of which large quantities were taken.

A chemist, 43 years old, took by mistake for cod-liver oil one ounce and a half of croton oil. Experienced almost immediately burning sensation in the throat and stomach, followed by violent vomiting and purging, the patient asserting that his dejections amounted to one hundred in number before entering the hospital. When brought there he presented the following symptoms: skin cold; face, hands, and toes slightly cyanosed; pupils dilated; senses intact; felt cold; pulse feeble, respiration painful, 12 per minute; abdomen tympanitic, extremely sensitive, persistent vomiting and purging. Treatment: emulsions of cherry-laurel water; milk and almond emulsion for drink; cold to head; injections of ice-water, with opiates. Recovered.

A little girl, six years old, took by mistake three grammes (45 grs.) of croton oil. She complained of an acrid feeling in the throat when it was swallowed, and in a few minutes had severe pain in the stomach, followed by frequent vomiting and purging, lasting three-quarters of an hour, when she fell asleep. On awakening she asked for food, took some broth, and experienced no other unpleasant effects.

HOW DOES CROTON OIL OCCASION DEATH?

In the case here first reported it was evidently due directly to the heart-clot; this, as formerly stated, was fibrous throughout, and firmly embedded among the cordæ tendineæ, etc., of the cavity of the ventricle. Other than this no post-mortem revelations were present of sufficient gravity to account for death. It cannot be from intestinal inflammation, as death occurs too suddenly to be due to this cause; nor to the exhausting effects of the purging, as this is not always present—as in Ellis's case. The symptoms observed in fatal cases of poisoning from this substance, and even in those not fatal, resemble strikingly those which Tardieu classes under *hyposténisants;* and in which class he places arsenic, phosphorus, salts of copper, salts of mercury, nitre, and digitalis. The following is his description of acute arsenical poisoning: Acrid burning in the throat; nausea, with repeated vomiting; ardent thirst, drink immediately exciting renewed vomiting; pain in the epigastrium increased by pressure; sometimes violent pain in the head; alteration of the features; coldness of the extremities; tendency to syncope; pulse scarcely perceptible; respiration much embarrassed; frequent alvine discharges, sometimes involuntary, accompany or succeed the vomiting; countenance pale, then cyanosed; vital forces rapidly fail; surface becomes cold, and death intervenes in from five to twenty hours from the first signs of the poisoning. No more complete description could be given of the symptoms following the ingestion of a poisonous dose of oil of croton.

It seems to us obvious that the fatal result is due to the depressing influence of the poison on the functions of organic life through the nervous system, and not due *mainly* to the vomiting and purging:—that it kills by entering the circulation, and not by its irritant local effects.

Progress of Medical Science.

THE DIAGNOSIS OF OVARIAN CYSTS AND THE INDICATIONS FOR THEIR TREATMENT.—Dr. Rheinstaedter, of Cologne, thus reduces to formulæ his views of the indications that can be drawn from the fluid obtained by puncture from suspected tumors. 1. The presence of paralbumen does not at all prove the existence of a hydrovarium. 2. From its absence we cannot argue with certainty the non-existence of cystic disease of the ovary. 3. There is great probability of a hydrovarium, if we find paralbumen abundant, with a viscid condition of the fluid, like barley-water, and with an abundant deposit of cellular detritus, and large round cells that are swollen or undergoing fatty degeneration. 4. The presence of well-formed, nucleated cells of cylindrical epithelium collected in groups or rows speaks positively for hydrovarium, especially when this microscopic investigation agrees with the gross appearances and the chemical constitution of the fluid. Dr. Rheinstaedter lays down the following as the *indications* for treatment. The danger of the operation always stands in direct relation to the danger of the disease itself, and this sometimes gives little trouble for many years, and is even sometimes spontaneously cured. A woman then, with a moderate large ovarian cyst which is stationary, and occasions no special difficulty, should not be operated on unless she urgently desires it. An expectant treatment should be adopted, including general hygienic measures, the avoidance of all causes of sexual irritation or excitement, the wearing of a body bandage, and careful attention to any complications. The patient should not marry, because of the danger of pregnancy as a complication. If, however, the cysts grow rapidly, so as to interfere with the functions of the body, and occasion loss of strength and severe neuralgic pain, extirpation is indicated. There are also certain circumstances, such as hemorrhages into the cyst threatening life, that call for immediate extirpation, as do also suppuration, or ulceration of the cyst, perforation followed by peritonitis, or symptoms of incarceration of the bowel in pseudomembranous bands. Puncture, either with or without the subsequent injection of iodine, is now generally rejected as a radical mode of treatment. It is uncertain, because there may be more than one cyst; it may cause circumscribed peritonitis, and adhesions which will complicate an ovariotomy when it has to be performed. Puncture with drainage from the abdominal walls is generally rejected, because the sac cannot be completely emptied of its ichorous contents. Puncture through the vagina, on the other hand, is regarded favorably in case of small cysts firmly attached in the pelvis, and it can be combined with drainage and the washing out of the cyst with medicated fluids, a mode of treatment which may be adopted even in the case of large cysts, and they can be reached in this way, if ovariotomy is refused. We should endeavor to persuade the patient to the latter, however. For purposes of diagnosis, however, puncture can, and should be employed in almost all cases, either through the vagina or abdomen, according to the accessibility of the tumor. Puncture may also serve as a palliative in cases where the tumor cannot be removed on account of adhesions, or where there is the complication of pregnancy occasioning pressure symptoms, where the internal organs require prompt relief. The contra-indications of ovariotomy are pointed out as above. It may, however, be indicated sometimes in pregnancy, when the symptoms due to pressure are urgent and cannot be relieved by puncture, or where there has occurred rupture of the cysts. In such cases, it is preferable to either artificial abortion, or artificial premature delivery. Ovariotomy is also contra-indicated in the presence of serious disease of internal organs which threatens to end fatally; also in cystic carcinoma.—*Berl. Klin. Woch.*, May 31, 1875.

MEDICAL ASSOCIATIONS IN AUSTRALIA.—*The Australian Medical Journal* estimates that there are about 1,200 practitioners in the Australian colonies, including Tasmania, of whom something less than 500 are in Victoria, rather more than 400 in New South Wales, about 150 in South Australia, probably 100 in Queensland, and about 60 in Tasmania. In Melbourne and Adelaide there are medical societies, and there used to be one in Sidney. The Medical Society of Victoria numbers about 120 members, and this is by far the largest number of the 1,200 who have ever associated themselves together. The question of organizing an Australian Association is being agitated.

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THE SANITARY CONDITION OF RURAL RETREATS.

THE sanitary condition of rural retreats is a subject in which a fresh interest is developed every time the season approaches when country board is in demand. We are willing to admit that a large number of the country hotels and farm-houses which are opened to the public patronage, answer the intention of their proprietors in being health resorts; but that a fair proportion of these places are abominations in a sanitary point of view, is beyond a doubt.

There are a great many circumstances which conspire to make any country place unhealthy, some of which are beyond control, but of these it does not concern us at present to speak. We only wish to refer in this connection to the existence of those conditions which are quite general and prevalent, but which are at the same time preventable.

No two elements are deserving of more consideration in the discussion of this part of the subject than house-drainage and the character of the drinking-water. Indeed, one of these conditions depends so much upon the other, that they may be almost treated together. Not long ago we were called upon to notice the sickness and death of several boarders in a fashionable country hotel, caused by the admixture of the contents of a foul cistern with the drinking-water. From the prominence of the establishment, and the social position of the victims, the affair attained a wide publicity, and thoroughly awakened popular attention to what at first seemed to be a trivial matter. To a superficial observer this would doubtless appear as an isolated instance of its sort, but to such as are acquainted with the sanitary surroundings of the ordinary farm-house the case is altogether different. The same condition of things which culminated in the death of the patrons of this first-class hotel exists to a greater or less degree in many of the country boarding-houses which are opened annually for the reception of metropolitan health-seekers.

Not only is little attention paid to drainage in the ordinary acceptation of the term, but we have other circumstances and conditions to take into account which may be considered somewhat peculiar to rural habitations. In the first place, the drinking-water is supplied by a well, which for convenience is in close proximity to the house; and in the second place, and for a like convenience, the privy is not very far off. Again, the barn-yard, which is likely to be near the house, is another element of soil contamination, the deleterious influences of which upon health can hardly be overestimated. It is quite natural to suppose that with all these influences at work, it is the exception rather than the rule for the well-water to remain absolutely pure.

No one doubts the bad influences of impure drinking-water upon health, and many a practitioner in the rural districts has been able to trace attacks of severe and dangerous illness to this source alone. It may be a pertinent question in this connection to inquire how much of the diarrhœa and other intestinal troubles which are usually charged to a change of drinking-water may in reality be due to leakage of sewage into the wells. A great many curious facts are related in support of such a supposition, and while they may not be absolutely proven, are quite suggestive to the inquiring mind. It is well known that many of the low forms of fever are also due to foul well-water, the relation of cause and effect being established beyond a reasonable doubt. Quite recently an elaborate paper on this subject was read at a meeting of the Public Health Association, in which some very curious and instructive facts were related bearing upon this point. Almost every practitioner has been able to corroborate to a greater or less extent all of these facts by his experience—has been enabled to note the modifying influences which these conditions of bad drainage and its attendant evils have upon the course of epidemics in a particular district, or particular household. We need not, however, multiply examples of this sort to bolster established facts.

As the causes of the unsanitary condition of these country boarding-places are entirely within our control, it becomes us to throw the influence of our professional opinion in the proper direction. Those medical gentlemen who are practising in districts in which the ordinary sanitary precautions are neglected, should do their utmost to educate their patrons to appreciate the necessity of a conscientious attention to such matters; while those who are in the habit of advising metropolitans to go to the country for the summer, should put them on their guard against the possible dangers that may await them in the many so-called healthy localities.

Many of the evils of defective drainage in rural districts are multiplied in proportion to the number of people who may be congregated at one place. Particularly is this the case with the so-called religious gatherings, which partake more of the character of pilgrimages than of healthful recreation. It has lately become the custom for large numbers to congregate on grounds purchased for the purpose, and hold the so-called camp-meetings. Not only are those who attend very much crowded and provided with insufficient shelter, but in the majority of instances little or no provision is made for drainage; and, under ordinary circumstances, it is only a question of time to insure the outbreak of some of the more intractable and malignant diseases which have been the scourge of armies in times when military hygiene was little understood and less practised. Already some of the managers of the larger camping-grounds are deploring the fact that the necessary precautions have not been taken to provide adequate sewerage, and already there is an anxiety for the possible evils which may grow out of any continued neglect of suitable preventive measures. These meetings should be looked upon from a sanitary point of view in the same light as an army in camp, and should be treated as such. The managers who may choose to ignore their duty in this respect assume an unwarrantable amount of responsibility, and in the face of well-known sanitary laws can hardly be held to too strict an accountability.

A NEW RECEPTION HOSPITAL.

Owing to the present insecure condition of the Park Hospital of this city, the governors of the New York Hospital have undertaken to supply its place, so that the lower portions of the city may be provided with a station for relief in case of emergencies. The Commissioners of the Sinking Fund of the city have turned over to them the building, No. 160 Chambers Street, formerly used as a police station, and its doors were thrown open on the 5th inst. for hospital purposes. It is called the "House of Relief of the Society of the New York Hospital," and it is understood that only such cases will be received as need immediate relief, or cannot well be removed to more distant points. As soon as the patients can bear transportation they will at once be removed. About twenty patients can be accommodated. The equipments, when finished, will be complete, both for the care and transportation of patients. The management is in the hands of a medical superintendent, who is also chief of the resident staff, and has two assistants. We learn that the service has already been quite active.

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British Medical Association.—The forty-third annual meeting of this association will be held at Edinburgh, commencing August 3d, and continuing four days. Sir Robert Christison is the president elect. The address on medicine will be given by James Warburton Begbie, the address on surgery by James Spence, and the address on physiology by William Rutherford. A large number of interesting papers have already been offered to the secretaries of the different sections.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Reports of Practice and Peculiarities in Treatment.

COLOR OF THE BLOOD IN LEUCOCYTHÆMIA.

It has been insisted upon by some observers that the blood in this affection has a *milky*-white color, easily recognized when a drop is placed on a microscopical slide. A drop of blood, taken from the patient by whose bedside we stood, presented the characteristic milk-white color, but unfortunately no undue proportion of white blood-globules was discovered, and the reason was that a single drop of blood taken from any person, and placed on a glass cover will present *the same appearance*.

DISEASE OF THE ELBOW-JOINT.

The interest in the case turned upon the decision of the question whether it was one of synovitis or of acute articular rheumatism. There was swelling, heat, pain; and the pain was relieved by compression rather than by extension; there was no very marked constitutional disturbance; it was his first attack, and there was no history of injury. The trouble showed no tendency to disseminate itself, and there were excessively tender points over the sides of the joint, but no fluctuation. The possibility of only one joint becoming affected with rheumatism was acknowledged, but it was thought to be impossible to determine in all cases which disease is present, especially in the earlier part of its course. The joint was leeched and fomented.

ACUTE ARTICULAR RHEUMATISM — PERICARDITIS — PLEURISY.

Pericarditis is so common in the course of rheumatism that it may with propriety be regarded as a part of the affection, but the occurrence of pleurisy with the disease is rather infrequent. The patient, æt. 19 years, was the subject of both diseases secondary to the articular affection, and both had been developed since his admission to the hospital. The amount of serum in the pericardial sac was considerable; the pleurisy was upon the left side, and the amount of effusion was not very great.

Alkalies and quinine, counter-irritation over the heart, and rest in bed were the leading elements of the treatment.

STEADY DECREASE IN THE SECRETION FROM THE KIDNEYS UNTIL THE QUANTITY OF URINE PASSED DAILY HAD REACHED EIGHT OUNCES.

A female patient who had phthisis, and also very moderate symptoms of Bright's disease, on the first day of the month passed eighteen ounces of urine; but since that time the quantity had been on the decrease, and had decreased steadily while diuretics were being administered, until the 18th day of the month she passed only eight ounces. The woman had not suffered any inconvenience whatever on account of this state of affairs.

VOMITING IN BRIGHT'S DISEASE.

In a few cases the use of electricity has seemed to have a good effect in controlling this symptom. It would check a vomiting attack, but the emesis would return, perhaps in a few hours, and the question arose, whether it was any more efficient for this purpose than any agent capable of producing a new impression upon the patient. One pole (immaterial which) was placed over the epigastrium, and the other over the *vertebra prominens*, and then carried up and down the spine.

ACUTE PLEURISY—RAPIDITY OF EFFUSION.

The point of interest in this case was the amount and rapidity with which the effusion had taken place.

A male patient, forty-five years of age, was in perfect health up to three weeks ago, when he was seized with a chill, which was followed by considerable fever, and soon after by shortness of breath.

The shortness of breath quickly became the leading symptom, and was soon accompanied by pain, extending over the left side of chest and upwards over the left side of the head, which was so severe that he was unable to lie down. When he was able to assume the horizontal posture he could lie only upon the left side. Upon physical examination it was found that absolute flatness extended from the bottom of the left pleural cavity up to the clavicle, and that vocal fremitus and vesicular respiration were entirely absent.

So far as the products of inflammation were concerned, they were evidently those found in subacute, or pleurisy with effusion, but the clinical history was essentially different. It was regarded as one of those cases of pleurisy—occasionally seen—in which serous effusion predominates, ordinarily increases very rapidly, and one element of danger in them is the development of syncope by pressure of the fluid upon the heart, for they occur chiefly, if not always, upon the left side.

Such syncope may prove fatal, and that fact gives rise to an important item in treatment, namely: relieve the tension at once by removing a portion of the fluid. In this case a portion of the fluid had been removed, and the remainder was passing away through the action of the absorbents, which were being stimulated by maintaining nutrition at the highest point possible. In case that the fluid did not disappear with considerable rapidity, paracentesis was to be performed at the end of one week.

DIFFICULT DIAGNOSIS.

A servant-girl, æt. thirty, and perfectly well up to five months ago, began to suffer from shortness of breath, which was followed by "heavy dry cough" that continued a few days, and then pain extending over the left mammary and into the axillary region. She recovered from the first attack and resumed her work, but was able to continue it only for two or three weeks, and thus she has gone on, at one time better, at another worse, sometimes able to work, at other times not, and was each time compelled to abandon her labor on account of the pain in the side and shortness of breath. Fever accompanied some of the attacks, but was not constant. She has lost considerable flesh, and the cough at no time has been attended with expectoration, nor has she ever had hemoptysis. She has been unable to work during the last month, and came into the hospital to obtain relief, and this completes the history of the case.

Upon physical examination of the chest there were found a pericardial friction-sound, retraction, and loss of expansion, feeble vocal fremitus, flatness, broncho-vesicular respiration feeble but distinct, and pleuritic friction-sounds over the lower portion of the left side posteriorly, with bronchial respiration anteriorly at the upper portion, and vocal resonance intensified from the top of the chest downward, though less distinct at the lower portion of the chest than at the upper, but no râles. Upon the right side were found, posteriorly below the scapula, absence of vocal fremitus and voice-sounds, flatness, and loss of both respiratory murmur and expansion; while at the upper portion there was exaggerated respiration. Over the pericardial region there was complete absence of respiratory murmur. What had given rise to the pericarditis, and how were the physical signs relating to the lungs and pleura to be explained? It was believed that five months ago the patient had an attack of pleurisy affecting the left side, which may have been productive of simple plastic material or serum in addition. Following this a gradual consolidation of the lung had taken place as the result of an interstitial pneumonia, excited by the pleurisy. The inflammation extended over that portion of the pleura covering the pericardium, adhesions occurred, and pericarditis was developed in consequence. There was fluid in the right pleural cavity, and it seemed probable that it was a recent accumulation.

REMITTENT FEVER.

The point in the case to which special reference was made was with regard to the administration of quinine.

A male patient, twenty-eight years of age, had an attack of chills and fever eight months ago, from which he recovered after taking a few doses of quinine. He had been exposed more or less to malarial influences since that time, and his present sickness was of fifteen days duration. It was ushered in by a chilly feeling, but not by distinct chills, extending over two or three days; thirst, malaria, and pains all over the body; and these symptoms continued ten days, when he came into the hospital. Since admission his temperature has ranged from 99° F. to 101¼° F. with evening exacerbations; his pulse rose to 96, and a yellowish coating was upon the tongue, but there were no sordes upon the teeth, no diarrhœa, no tenderness in the right iliac fossa, and no eruption. He had had some headache and vomiting. There was considerable enlargement of the liver and spleen, and pressure over the former gave rise to considerable pain. The case was regarded as one of mild remittent fever, which was plodding its way along now as a continued fever, and it was to the manner of administering quinine in such cases that especially attention was drawn. It was to wait until the temperature goes down, watching it carefully, perhaps making a record every four hours, and when it falls, as certainly it will, administer a large dose of quinine, say twenty or thirty grains, and that may be repeated in eight or twelve hours. In these cases the thermometer is the most intelligent guide in the use of the remedy, for one single large dose given at the time the temperature falls is far more serviceable than the continued administration at stated intervals of smaller doses.

PLEURO-PNEUMONIA.

The point of interest in this case was the accession of the pneumonia after the pleurisy had existed several days, for it was upon this fact that the above diagnosis was made. A man, about thirty years of age, and of good habits, was perfectly well up to twelve days ago, when, in the night, he awoke with a severe pain in his right side, just beneath the nipple. The pain passed away before morning and did not trouble him again until the next night; then it returned, but passed away the second time. On the third night it returned; was so severe the following morning that he was unable to lie down, and was accompanied by fever and vomiting. He remained in about this condition until the fourth day, when he was admitted to the hospital.

He had not had a chill, but an irritating cough had been present from the beginning of the attack, and was attended with an expectoration of only a small amount of whitish material. When admitted his temperature was 100$\frac{1}{2}$° F., and remained at about that point until three days ago, when he had a chill, and his temperature went up to 103° and 104° F. The cough remained about the same, but was not accompanied by any "rusty" expectoration. His countenance was only moderately flushed; respiration was about normal, and the pulse was 100. Upon inspection, it was found that the right side moved but little when a full inspiration was taken, and palpation revealed the fact that vocal fremitus was almost entirely absent. Flatness upon percussion was detected over the lower portion of the right lung, anteriorly and posteriorly, and the line of flatness was not changed materially by changing the position of the patient. There was loss of respiratory murmur, but bronchial breathing and bronchophony were well marked just below the line of flatness, and the former could be traced nearly to the bottom of the pleural cavity. Fine crackling sounds were also heard at the end of inspiration.

Such cases as this are occasionally seen, and are usually rather perplexing. The points to be noted are:

1. The history, the flatness upon percussion, the early increase of temperature, the friction-sound, and the loss of vocal fremitus, all of which point to pleurisy.

2. The chill, the rise in temperature, the bronchial breathing, and bronchophony, pointing towards pneumonia.

3. Absence of the characteristic expectoration of pneumonia, with his age and previous condition. The fact that bronchial breathing was most intense just below the line of flatness, and could be heard nearly to the bottom of the pleural cavity, was regarded as straight evidence that consolidation of lung tissue was present. The prognosis made was, that probably a year would elapse before the lung would become completely free. Treatment: dry cups, carbonate of ammonia and quinine.

APOMORPHIA.

This remedy has been used in the hospital as an emetic in two cases.

It has been claimed that the "great promptness of its action, the freedom of its emesis from nausea, and its ease of administration recommend it for all cases in which simply a prompt emptying of the stomach is desired." It is used hypodermically in doses of $\frac{1}{8}$ to $\frac{1}{10}$ of a grain. Of these instances one was said to be a case of poisoning by arsenic, and the stomach had been washed out before admission to the hospital. A hypodermic injection containing $\frac{1}{8}$ of a grain of this remedy was administered, and the patient vomited in about eight or ten minutes. The solution used, however, had been prepared for some length of time.

The other case was one in which there had been rather too free indulgence in alcohol; but a freshly prepared solution of the remedy was used, and the same amount administered as in the other case emptied the stomach within two minutes.

PLUGGING THE POSTERIOR NARES.

This operation is one of the bugbears in surgery, therefore a simple method of performing it may be repeated without giving offence. It may not be anything new, but the ease with which it was performed in this case was certainly agreeable to the patient and pleasing to the surgeon. A small bougie having a bulbous extremity (a fine catheter may answer the same purpose) was introduced into the nostril to be plugged, and carried along the floor until it could be seen emerging into the pharynx; this extremity was then seized with a pair of long forceps—which can usually be done without inconvenience to the patient—and brought forward through the mouth. A strong silken cord was then attached to it, and to the other extremity of the cord was fastened a pledget of lint. The bougie was then withdrawn from the nostril, and with it the string to which was attached the plug, and then this was drawn through the mouth, and quickly carried up behind the velum into the cavity for which it was designed. The operation gave the patient but little inconvenience, and the plug was to remain until the *natural secretion of the parts loosened it* sufficiently to permit a spontaneous removal.

METHOD OF APPLYING A TAMPON.

Take a piece of fine rubber cloth,—a piece of soft muslin or a pocket handkerchief will answer—oil it upon the outside, if you choose, and then, placing one or two fingers in the centre of it, letting the cloth hang over the hand, carry it into the vagina as far as desirable, or into whatever cavity you wish to tampon and can carry the finger. This can be done without giving the patient any more discomfort than does a digital examination.

Now we have a collapsed pouch-like cavity, which can be distended at the pleasure of the operator; may be filled without risk of injuring the soft parts; and without the tugging ordinarily experienced when a tampon is introduced without a speculum.

CARBUNCLE.

Sir Astley Cooper has said that carbuncle, occurring upon a person over seventy years of age, will prove fatal. Here was a man, however, who was seventy-seven years of age, who had had a large carbuncle upon his shoulder, but it was nearly healed, and the old man was hale and hearty. Quinine and iron, good food, cleanliness, simple cerate, and balsam of Peru, had made up the treatment.

PNEUMONIA.

The peculiarity of this case consisted in the presence of considerable bronchitis and pulmonary œdema in addition to the pneumonia. The patient was a man about thirty-five years of age, medium size, and very muscular. The lower lobe of the left lung was the part chiefly affected by the pneumonia; there was marked bronchophony, but no true bronchial breathing, and he had had the "rusty" expectoration. In addition there were subcrepitant and fine mucous râles all over the posterior portion of the chest, and he had expectorated considerable frothy material, mixed with blood. In this case and several others a single large dose of quinine had been given early, say thirty grains, to see what the effect would be upon the progress of the pneumonia. In a few cases it *seemed* as though the progress of the disease had been arrested. No positive conclusions, however, had been obtained.

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A State Board of Health in Georgia.—Through the exertions of Dr. J. G. Thomas, of Savannah, Ga., who was last year elected to the Legislature, a State Board of Health has been organized, of which Dr. Thomas is himself President, and Dr. V. H. Talliaferro, of Atlanta, Secretary. The Board consists of Drs. J. G. Thomas, Geo. F. Cooper, B. M. Cromwell, F. A. Stanford, C. B. Nottingham, H. H. Carlton, G. W. Holmes, J. P. Logan, and H. F. Campbell, with the Comptroller-General, Attorney-General, and Geologist of the State as ex-officio members.

Correspondence.

OPERATIONS FOR VESICO-VAGINAL FISTULA.

A LETTER FROM DR. BOZEMAN.

From a letter addressed to Dr. Jean F. Chauveau, of this city, we quote the following:—

In my last letter I told you also I would give you soon the result of my operations in Heidelberg. I was there with Prof. Simon about six weeks. He received me very kindly, and seemed glad of the opportunity to make a practical test of our respective operations, with the view of determining the range of their applicability. He performed from first to last four operations by his method, with the following results: three partial successes and one death.

The first case presented a good-sized fistula, which occupied the base of the bladder. Here the uterus was movable and could be easily drawn down for the operation, which is essential to the success of Prof. S.'s method in fistulas situated high up. About seven-eighths of the fistula was closed.

A second case was that of a woman upon whom he had performed kolpokleisis seven years before. The result of the first operation was cystitis, and the formation of a stone in the vagina above the seat of closure. This stone finally cut through the cicatrix, thus reopening the vagina. The patient's condition having become unendurable, she applied to Prof. S. the second time. The operation he performed had for its object the reclosure of the vagina, which I witnessed. It was kolpokleisis the second time. On the tenth day the patient died. Autopsy: Fistula, or rather the vagina, not closed; the denuded edges throughout having separated. Both kidneys extensively diseased, and a calculus in the right ureter, near the bladder; old adhesions around the uterus. Contraction of the bladder with cystitis. The original fistula only large enough to admit the end of the index finger. Vagina contracted and shortened.

I may say, therefore, in this subject were found all the morbid lesions resulting from kolpokleisis which I pointed out in my paper about the subject (American Journal of Med. Sciences, July, 1870), and which will result in a majority of cases.

The next case Prof. S. tried was a woman from Russia, who had been operated upon successfully by another surgeon nine months before for kolpokleisis. The woman's husband becoming dissatisfied with the shutting up of the vagina, and the little improvement as regarded the retentive power of the bladder, consulted Prof. S. Upon examination he found the fistula small, and therefore proceeded to re-establish the vagina. After effecting the latter, he proceeded to close the fistula itself, situated at the root of the urethra. The operation was performed through my small speculum, which gave Prof. S. great satisfaction. The operation succeeded only to a limited extent, the failure being due probably to the cystitis, which still existed to a slight extent at the time of the operation. Nine or ten days after the operation, the patient had what was supposed to be pyelitis, which probably existed to a slight extent, as a sequence of the kolpokleisis and cystitis.

The fourth case of Prof. S. was a young woman, aged about twenty. She had a small fistula at the root of the urethra, with complete atresia of the vagina above, with no outlet for the menses. Prof. Simon proposed in this case to close the fistula as the first step of the treatment. But instead of closing the fistula as he intended, he closed the vagina below the fistula, thus making the operation one of kolpokleisis, with no provision for the escape of the menses. The result was only a partial success, and further treatment will be required to complete the occlusion.

Now as to my three cases. The first one presented was a very small woman, with a good-sized fistula involving the cervix uteri. I employed five sutures with a suitable button, and completed the closure at the first operation.

The second case was the one Prof. S. first operated upon with partial success. The fistula was small and involved the cervix uteri, perfectly simple and easy to get at, as shown by the fact that it took only thirty-five minutes to complete the operation. The case was just such a one that I would have guaranteed a cure in eight days, if I had had entire management of the after-treatment. But, as it turned out, the after-treatment was not properly carried out and cystitis resulted, which caused the fistula to reopen two days after the suture apparatus was removed. On the sixth day the closure was found complete, as shown by the fact that not a drop of urine escaped per vaginam during two hours. During this time there was no catheter in the urethra, and the quantity of urine drawn off showed that the retention was complete.

My third case was a woman from Holland, aged about thirty-eight. Prof. S. placed her in his position (the Steiss Kinelage), and with his instruments attempted to display the edge of the fistula, which he utterly failed to do. He stated to his class that he had met with a similar case at Rostock, in which he performed oblique obliteration of the vagina, kolpokleisis, and such an operation he would do in this case, thus cut off the cervix uteri from a vaginal outlet, and place it in communication with the cavity of the bladder. In this way would be made a *cul-de-sac* in the vagina, into which the urine could enter through the fistula, and cause serious trouble, viz.: vaginitis, endometritis, and calculus, with all their attendant symptoms.

After Prof. Simon had finished his remarks upon the case, he requested me to examine the case in my position, with my instruments, and say what I would do under the circumstances. I found the vagina very capacious, and the fistulous opening funnel-shaped, with the apex—the edge of the fistula proper—turned into the bladder and partially united to the right side of the pelvis.

In front of the fistula, in the anterior vaginal wall, there was transverse contraction, which offered an additional obstruction to the view of the fistula. But notwithstanding all those complications in the case, I was able to get a sufficient view of the edge of the fistula, and enable me to say promptly I could unite them, and thus preserve the functions of all the organs involved.

Thereupon, Prof. Simon requested me to perform the operation, as he wished to see it. After dividing the constricted part referred to, and dilating the vagina with tents for ten days, I proceeded to perform the operation indicated for closure of the fistula. The operation proved tedious and protracted, though it was entirely satisfactory. Prof. S. expressed himself satisfied, and said he did not see how it could fail to succeed.

Six or eight hours after the operation, I found an unusually small quantity of urine passing per catheter, which at once aroused my suspicions as to the right ureter being closed between two of my sutures. A few hours later, the patient had great pain in the right kidney, and then felt a gush of urine into the vagina, with complete relief. When I saw her again, about eighteen hours after the separation, and learned the true story of the case, I told Prof. S. we would have a partial failure of the operation, corresponding to the point at which the right ureter lay in the posterior edge of the fistula. The same accident having occurred some years ago in a case in the Hôtel-Dieu of Paris, upon which I operated, and in other cases, I felt confident of the final result—a partial failure. The removal of the suture apparatus on the eighth day in this case fully confirmed my explanation. A small fistula remained about the middle of the line of cicatrization, which was nearly two inches in length. This remaining fistula is, properly speaking, a vesico-urethro vaginal fistula. Now that the precise situation of the ureter is known, there can be no difficulty in the next operation, when a complete cure may be expected; I shall probably return to Heidelberg and perform it.

At the second operation of Prof. Simon and myself, which we performed the same day, Dr. Koeberlé, of Strassburg, the celebrated ovariotomist, was present. He came to Heidelberg and spent two days to see us operate. Prof. Simon frankly admits the superiority of my operation in all cases when the fistula is situated high up. He is delighted with my speculum, and, indeed, has ordered all my instruments to be copied, even my operating chair.

I expect to go to Vienna next week, and if the opportunity offers, will probably operate there.

Yours, etc.,

N. Bozeman.

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THE PRESBYTERIAN HOSPITAL AFFAIR.

To the Editor of the Medical Record.

Dear Sir—Like our friend Dr. Roosa, I also find that something yet remains to be said about the affairs of the Presbyterian Hospital, and the relation they bear to the welfare and honor of the profession. Like him, I would be disposed to smile at the charge of advertising which has been made against the sixty who are supposed to represent the opinions of "the majority of the thoughtful members of the profession," were it not of too trivial importance to be worthy of a place, even as a side issue with questions which concern all who hope to hold honorable positions among us.

It will hardly be profitable to enter into a discussion as to whether those who hold contrary views to the doctor and his fifty-nine or more coadjutors have attained to that degree of acumen which would entitle them to be considered thoughtful, but there is, nevertheless, a large number of physicians who do not entirely agree either with yourself or Dr. Roosa, regarding the nature of the question at issue. Some of them declined to sign the protest, and I may mention, in this connection, that some of the "thoughtful" ones who did are reported to have taken further thought, and modified their views (which shows the advantage of being of a "thoughtful" nature).

The question at issue, as I and others understand it, is: Have the managers of the Presbyterian Hospital a right to enforce a rule established with the Hospital, originated by the only medical member of the Board of Managers, and subscribed to by the gentlemen who lost their places?

Now let us leave all this talk about the dignity of the profession, the duty that we owe to each other, etc., until we are quite sure of what we are talking about; then we may pat ourselves on the back to our hearts' content, providing you have the room in your columns to admit of an indulgence in so innocent an amusement.

When the Rules and Regulations of the Presbyterian Hospital were being drawn up, the following was put at the head of them—

"1. Appointments.

"All the physicians and surgeons connected with the Hospital shall be appointed annually by the Board of Managers."

I have it from excellent authority, that this was, as I have said, introduced by the only medical man who held a position on the Board of Managers; and as he was, or had been at one time or another connected in a responsible capacity with nearly every important hospital in the city, it is to be presumed that he had some good reason for giving this rule so prominent a position in the Regulations. Furthermore, since a large proportion of the medical and surgical staff at the outset had been private students of either himself or his personal friends, or were intimately associated with him in practice or teaching, this clause could not have been particularly obnoxious to what they then considered the interests of themselves or the honor of the profession. In accepting positions under it, they became, with the managers, partners to a contract in which there was not the slightest intimation, expressed or implied, that "cause" should be shown in the event of their non-reëlection at any subsequent annual meeting. If they did not like the terms of the agreement, they were at liberty to decline the appointments. The recent attempts on the part of the friends of these gentlemen to coerce the Board of Managers into "showing cause," as well as the efforts that have been made to intimidate those who continued to hold positions on the Medical Board, or might desire to accept appointments on it, smack too strongly of the spirit of trade-unionism to reflect much credit upon the "thoughtful" members of the profession who have been so demonstrative.

If, instead of disputing in so public and impressive a manner the right of the Board of Managers to administer the affairs of the Hospital according to the published rules, these sixty or more champions of professional honor had remonstrated against the *existence*, among the regulations of the Presbyterian, or any other hospital, of such a standing rule as the one above cited; had urged the importance and justice of having at least as large a medical element in the Board of Managers of this hospital as there is of the clerical profession; had recommended that the duration of service of the attending physicians and surgeons should at least correspond to that of the managers, with eligibility to re-election, and the services of consulting physicians and surgeons should be for life, or the pleasure of the Board, then no one but those who wish to have our hospitals managed in the interests of a clique, could fail to respect the sentiments or actions of the signers of such a document, be they six, sixty, or six hundred, and least of all a Board of Managers of the character like the one under consideration.

That this protest, as an advance of medical unity and *esprit de corps* in the aroused sense of fair play, is anything more than apparent, I beg leave to doubt. There is no question that *if* it should be kept up, it might bring about that millennium in hospital relationships which the Doctor hopes for, but until some of the persons who were so active in soliciting signatures to the protest, and writing inflammatory letters to the daily press, choose to exert themselves in the interest of other members of the medical profession than their personal friends and relatives, there will be unthinking persons who will ask better evidence than Dr. Roosa's hopes to convince them, that the profession have anything to gain by lending their aid to tighten the hold by which the clique who have attempted to govern our hospital appointments retain the places they have held for so many years.

Some of the writers in the *Tribune* have chosen to refer to the managers as holding their places in trust for those who have subscribed to the endowment and support of the Hospital, and have questioned their right to act in a manner so arbitrary and contrary to the wishes of the patrons of the institutions. I have no means of knowing who were in the majority or who were in the minority of the members voting at the annual meeting, but any one who will take the trouble to consult the Annual Reports of the institution may observe that something over $860,000 have been paid into the treasury by the managers themselves, their immediate relatives, and those whose opinions they are known to represent, against about $150,000 from other sources. As to who have the best right to manage the affairs of a hospital thus supported, there can be but little question.

I fail to appreciate the motive which could have led to the adoption of the rule of annual election, since it is in spirit manifestly unjust to both the Hospital and its medical board. The one cannot afford to dispense with the trained services of its physicians and surgeons; and desirable medical attendants could hardly be secured without a reasonable immunity from sudden changes like the one which has given occasion for this controversy. Yet another question is involved in this matter of hospital appointments which is quite as important as this. It is becoming quite the thing to talk about the duties which the profession owe to the public, and just now it seems that one of them seems to be the publication of medical papers and society transactions in the secular press. Have not the public a right, likewise, to skilled medical attendants, and if the "public," as we are frequently told, support hospitals and dispensaries for the advancement of the science of medicine, as well as for the relief of suffering, have they not a right to as large a return, proportionately, in the former way as in the latter? May not quite as much be done to increase the *esprit de corps* and intelligence of the graduated physician by affording him a reasonable chance for a hospital service, as by "raising the standard" of our medical schools? No one knows better than yourself the number of medical men in our city who are as worthy by training and intelligence to hold hospital appointments as the favored few who, by fortune, favoritism, and family, quite as much as by merit, have gained the positions they expect to hold for life, or until they choose to resign them.

The establishment of a limit to the term of service, which, while it would insure to the hospital the services of a trained and skilful professional corps, would also afford the advantages of hospital practice to the largest number of worthy physicians; would stimulate those holding such appointments to make the most of their advantages during their terms of service, and, by making the acquisition of hospital appointments easier to the younger members of the profession, would encourage them to gain such positions by merit rather than by the "fawning" to which Dr. Roosa so eloquently alludes.

Like Judge Neilson, of Brooklyn, I have a number of opinions, which I have been waiting some time for an opportunity to ventilate, but I feel that I have said about as much this time as you are likely to have space for.

Justitia.

HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

University of Michigan,
Ann Arbor, *July* 13, 1875.

To the Editor of The Medical Record.

Sir:—You are in error in your brief editorial in Record of Saturday last, and have done the Regents of this University an injustice by asserting that an attempt is being made, on their part, "to appoint one or two homœopathic professors, ostensibly to take charge of the new department, but in reality to become by law members of the faculty." If you will refer to the bill, establishing the College of Homœopathy, published a few weeks since in full in your own columns, you will see that this assertion is not true. The homœopathic professors are not, and by the very terms of the act cannot be, members of the faculty of the now existing department of medicine; nor, on the other hand, are the professors in this, the old school, members of the faculty of the Homœopathic College, for both schools have separate statutory enactments, creating them distinct and independent departments of the University.

Your article is furthermore *doubly* unjust to the Regents, from the fact that they have twice refused peremptorily to obey the Legislature, when it attempted to force such "disagreeable and unprofitable associations," by enacting the appointment of homœopathic professors in the old department of medicine. This offensive feature having been removed in the last act, the Regents have accepted the legislative grant of money, and have established the new college.

Very respectfully,

E. S. Dunster, M.D.

[We very cheerfully give place to Prof. Dunster's letter. At the time of writing the article referred to we believed that the statements furnished us were founded on fact.]

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from July 11th to July 17th, 1875.

Head, J. F., Surgeon and Medical Director.—Leave of absence extended 25 days. S. O. 21, Mil. Division of the South, July 8, 1875.

Fryer, B. E., Surgeon.—Relieved from duty at Fort Wadsworth, N. Y. H. S. O. 135, Mil. Division of the Atlantic, July 10, 1875.

Hall, J. D., Assistant Surgeon.—Relieved from duty in Dept. of Dakota, to report to the President of the Army Medical Board, New York City, for examination for promotion, and, upon its conclusion, by letter to the Surgeon-General. S. O. 135, A. G. O., July 8, 1875.

Cowdrey, S. G., Assistant Surgeon.—Granted leave of absence for four months. S. O. 139, A. G. O., July 12, 1875.

Ainsworth, F. C., Assistant Surgeon.—Relieved from duty at the U. S. Mil. Academy, and to report by letter to the Surgeon-General. S. O. 141, A. G. O., July 13, 1875.

LORD, GEO. E., Assistant Surgeon.—Assigned to duty at Fort Snelling, Minn. S. O. 128, Dept. of Dakota, July 8, 1875.

July 15th.

CASSIN, CHARLES L., Passed Assistant Surgeon.—Ordered to the *Frolic.*

LOVERING. P. A., Assistant Surgeon.—Ordered to the Receiving Ship *Ohio.*

SIMONS, M. A.—Detached from the Receiving Ship *Ohio* and ordered to the Boston Navy Yard.

July 17th.

GREENE, V. T., Acting Passed Assistant Surgeon.—Detached from the *Lancaster* and awaiting orders.

Medical Items and News.

RANK OF MEDICAL CORPS OF THE ARMY.—The American Medical Association, at its recent meeting held in Louisville, appointed the following gentlemen as a Committee on the Rank of the Medical Corps of the Army: Drs. H. A. Johnson, Chicago; John P. Gray, Utica; E. L. Howard, Baltimore; George F. Shrady, New York, and Horatio C. Wood, Jr., Philadelphia.

LONG ISLAND COLLEGE HOSPITAL.—At the sixteenth annual commencement of this college, the degree of Doctor in Medicine was conferred upon forty-four graduates.

Prizes, consisting of sets of instruments, were awarded to Evan B. Jones, for the best report of clinical lectures, and to Berridge C. K. Lucas, for the best report of didactic lectures; also a Rockwell's forceps to E. C. Dudley, for the second best report. An oration was then delivered by John G. Saxe, LL.D., on the relation of physician and patient, and some of the annoyances of the medical profession.

The valedictory address, on the progress of the science of medicine, was delivered by E. C. Dudley, M.D.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT.—The twenty-second annual commencement of this school took place on June 24, at Middlebury. President Buckham conferred degrees on thirty graduates, after which Dr. L. C. Butler welcomed the class to the profession. After the distribution of prizes an address was delivered by Professor A. F. A. King, and the valedictory by Mr. Edward R. Campbell.

The college authorities announce the following change in the Faculty: Dr. J. L. Little, who for many years has held the position as Lecturer on Operative Surgery and Surgical Dressings in the College of Physicians and Surgeons of New York, and who is one of the Surgeons to St. Luke's and St. Vincent's Hospitals, has been elected to fill the chair of the Principles and Practice of Surgery in this institution.

DR. D. B. St. John Roosa, who has for many years occupied the chair of Diseases of the Eye and Ear in the University of New York, will deliver a course of lectures on "Ophthalmology" and "Otology" during the college term. Dr. R. W. Taylor, late Professor of Dermatology in the Woman's Medical College of New York, will deliver a course of lectures on Diseases of the Skin. Dr. S. M. Roberts, Professor of Diseases of Children in the Woman's Medical College of New York, will also deliver a course of lectures on that subject.

THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, at its ninth annual meeting, held at Jefferson City on the 20th and 21st of April last, elected John T. Hodgen, of St. Louis, President for the ensuing year: F. M. Johnson, J. M. Allen, J. L. B. Alleyne, J. T. Wilson, and G. B. Winston, Vice-Presidents; E. M. Schauffler, of Kansas City, and H. N. Spencer, of St. Louis, Recording Secretaries; John H. Britts, of Clinton, Corresponding Secretary; and A. N. Kineannon, Treasurer. The next meeting of the Society is to be at St. Louis, on the third Tuesday in April next.

BOYLSTON MEDICAL PRIZE QUESTIONS.—The Boylston Medical Committee, appointed by the President and Fellows of Harvard University, consists of the following physicians: Drs. J. B. S. Jackson, H. R. Storer, Merrill Wyman, Henry J. Bigelow, Richard M. Hodges, Calvin Ellis, and Samuel Cabot. At the annual meeting, held June 7, 1875, it was voted that no dissertation worthy of a prize had been offered on either of the subjects proposed for 1875.

The following are the questions proposed for 1876:

1. Civil Hospital Construction (not of Lunatic Asylums): Location, Materials, Arrangements, Warming, Ventilation, Drainage, lighting; with Designs.

The author of a dissertation on this subject considered worthy of a prize, will be entitled to a premium of three hundred dollars.

2. Do Women require mental and bodily rest during menstruation; and to what extent? The author of a dissertation on this subject, considered worthy of a prize, will be entitled to a premium of two hundred dollars. Dissertations on the above subjects must be transmitted, postpaid, to J. B. S. Jackson, M.D., Boston, *on or before the first Wednesday in April*, 1876.

The following are the questions proposed for 1877:

1. Are Epidemics, and so-called contagious diseases, necessarily dependent upon material agencies, acting through the stomach, or otherwise? 2. Athletic Sports, Training, Violent Exercises, etc., as now practised by young men; their temporary or permanent influence on the health. The author of a dissertation, considered worthy of a prize, on either of the subjects proposed for 1877, will be entitled to a premium of two hundred and fifty dollars.

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday in April, 1877. Each dissertation must be accompanied by a sealed packet on which shall be written some device or sentence, and within which shall be enclosed the author's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

The writer of each dissertation is expected to transmit his communication to the President of the Committee, J. B. S. Jackson, M.D., in a distinct and plain handwriting, and with the pages bound in book-form, within the time specified. Any clue by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition. Preference will be given to dissertations which exhibit original work. All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—1st. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged. 2d. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

Original Communications.

ANALYSIS OF THREE HUNDRED AND TWENTY-TWO (322) CASES OF FRACTURE OF THE FEMUR AT BELLEVUE HOSPITAL, FROM 1865 TO 1873 INCLUSIVE.

By FREDERICK E. HYDE, M.D.,

NEW YORK.

I WAS led to compile the following tables from having at my command the necessary data, obtained from the records of Bellevue Hospital last year for another purpose, but which I have here still further elaborated. As far as I have been able to ascertain, this is the largest number of cases of fracture of the thigh that has been analyzed and arranged in tabular form. Malgaigne's cases come next as to numbers, he having recorded three hundred and eight cases, extending over eleven years.

I have endeavored to present in these tables a careful transcription of the records for the time specified, as a contribution of facts upon the various points which they bring forward.

Table A has reference to the point of fracture; Table B to the character of the fracture; and Table C to the age of the patient.

In Table A I have considered six points of fracture; two of the neck, intra- and extra-capsular; three of the shaft, the upper, middle, and lower thirds; and fractures of the condyles. Fractures occurring at the junction of the middle third with the upper and lower thirds I have included with those of the middle third: this is justifiable upon the ground that such fractures are produced in the same manner, they are not far enough from the middle point of the bone to require different treatment, and they have the same general results. Fractures of the trochanters I have included with fractures of the upper third.

Under each of the above headings I have given the number of cases occurring, the sex, character of the fracture, result as to cure, the number of days the splint remained on, the average amount of shortening, both excluding and including recoveries without shortening, together with other points of lesser interest.

The large proportion of fractures of the neck not classified would seem to indicate the difficulty of diagnosticating such fractures, as there are 30 fractures not classified, and but 31 classified; 14 intra-capsular, and 17 extra-capsular. Of intra-capsular fractures the larger proportion occurred in females, 10 to 4; whereas, of the extra-capsular, the larger proportion were in males, 11 to 6. Of 61 fractures of the neck the character is indicated in 50 cases, all of which are simple fractures, three only having complications. When we remember the facility with which this portion of the femur is broken in advanced years (as see Table C), and consider the manner in which such fractures are caused, as well as the great depth of covering, we will not look for a compound fracture at this point, unless it be a gunshot injury.

There are four cases of non union of intra-capsular fractures recorded, and none of extra-capsular fractures, bearing out the observations of others upon this point, that extra-capsular fractures, as a rule, unite, whereas very many intra-capsular fractures remain permanently ununited.

No cases are on record, of fracture at this point, in which union took place without shortening. The number of cases recorded of recovery with shortening is so small that they are of no value in estimating results.

Of fractures of the shaft there are 254 cases, very much the larger number being of the middle third, namely, 168; while fractures of the upper and lower thirds are about equal in number, 34 of the former and 32 of the latter. Of the total number of fractures of the shaft, 201 occurred in males and 46 in females, in 7 cases the sex is not recorded. 187 were simple fractures and 35 compound. It is of importance to note that where the point of fracture is indicated, no cases of non-union are recorded, and even in the total number of fractures of the shaft, 254, there are but 2 cases, which is certainly a very small proportion. This fact would lead us naturally to inquire whether any special method of treatment had produced this result, but the cases occurring during the nine years included in the tables were treated by a variety of methods, running through double-inclined-plane, Buck's extension and plaster, so that the kind of treatment has had no observable effect, and I think that the small number of cases recorded would seem to indicate that there is very little tendency to non-union in the shaft of this bone, much less, indeed, than has generally been supposed.

The percentage of deaths is about the same in both fractures of the neck and shaft, being about 12 per cent. in the latter and 13 per cent. in the former. It must be borne in mind in this comparison, however, that in fractures of the neck no compound fractures are included, so that we have a greater fatality in these fractures, due, not so much to the lesion itself, as probably to the shock to the system at the advanced age at which it most generally occurs.

I have given the number of days the splint remained on, in order that an approximative idea might be formed as to the length of time required for a fractured femur to unite. In fractures of the shaft the average time was 41¼ days, or about 6 weeks, the number of cases averaged being 37, the shortest time 25 days—a child 3 years of age, middle third—the longest time 102 days. In fractures of the neck, out of the 61 cases, but 3 are recorded in which the time the splint was on could be ascertained. These averaged about 6 weeks, but the number of cases is too small to be of value.

There are 18 cases of fracture of the shaft recorded as not-shortened, 3 of the upper third, 14 of the middle third, and one of the lower third. Two of these "not-shortened" limbs are recorded as having been lengthened under treatment, so that the sound limb is shorter than the fractured one. They are the following:

CASE 1.—Simple fracture, middle third, male, 6 years of age, ¼ inch longer than normal. Plaster-of-Paris splint applied under anæsthetic: causing pain, it was cut open, and Buck's extension applied.

CASE 2.—Simple fracture, middle third, male, 28 years of age, ⅛ inch longer than normal. Plaster-of-Paris splint, including pelvis, was applied under ether; "strong extension;" on 6th day the plaster, causing pain, was cut at the waist; on 8th day was cut up to the knee; 40th day the plaster splint was removed.

I will take the liberty of introducing here an additional case of lengthening after fracture, which occurred since the tables were compiled. It was a case at Bellevue Hospital, under the care of Dr. Frank H Hamilton, of simple fracture, middle third, male about 35 years of age, ¼ inch longer than normal

TABLE A, HAVING REFERENCE TO THE POINT OF FRACTURE.

Point of Fracture.	No. of Cases.	Sex.		Character of Fracture.										Result as to Cure.				No. of Days Splint Remained on.				Shortening.					
		Female.	Male.	Simple.	Simp. Comm.	Simp. Compl.	Compound.	Comp. Comm.	Comp. Compl.	Not stated.	Left.	Right.	Not stated.	Union.	Non-union.	Deaths.	Result not stated.	Cases noted.	Shortest time.	Longest time	Average time.	Not shortened.	Shortened.	Least shortening.	Most shortening.	Average shortening, *excluding cases not shortened*, in eighths of an inch.	Average shortening, *including cases not shortened*, in eighths of an inch.
Neck—Intra-capsular....	14	10	4	9	...	1	...	...	...	4	5	3	6	3	4	2	5	1	41	41	41	...	2	4/8 in.	4/8 in.	*Eighths.* 4. or about ½ in.	*Eighths.* 4. or about ½ in.
" —Extra-capsular. ..	17	6	11	15	..	1	...	...	...	1	3	2	12	6	...	2	9	...	...	...	...	...	5	4/8 in.	1 in.	6.2 " ¾ in.	6.2 " ¾ in.
" —Not Classified....	30	6	24	23	...	1	...	...	...	6	9	9	12	13	2	4	11	2	29	57	43	...	10	¼ in.	1½ in.	5.4 " ⅝ in.	5.4 " ⅝ in.
Total Fractures of Neck.	61	22	39	47	...	3	...	...	...	11	17	14	30	22	6	8	25	3	29	57	42½	...	17	¼ in.	1½ in.	5.47 or about ⅝ in.	5.47 or about ⅝ in.
Shaft—Upper Third.....	34	7	27	18	...	2	2	...	2	9	9	7	18	20	...	3	11	6	30	102	52⅚	3	12	¼ in.	3 ins.	6.8 or about ⅞ in.	5.5 or about ¾ in.
" —Middle Third....	168	[1]28	136	130	1	13	[2]17	4	1	...	43	46	79	87	...	21	60	26	25	54	38¼	14	54	⅛ in.	1¾ in.	4.7 " ⅝ in.	3.9 " ½ in.
" —Lower Third.....	32	[1]6	25	15	2	1	[4]2	2	1	6	[4]8	7	18	11	...	4	17	4	30	45	39	1	9	⅛ in.	1 in.	4.8 " ⅝ in.	4.4 " ½ in.
" —Point not indicated.........	20	[1]5	13	5	...	...	3	...	[3]1	11	[4]2	5	14	8	2	3	7	1	60	60	60	...	6	¼ in.	1½ in.	7. " ⅞ in.	7. " ⅞ in.
Total Fractures of Shaft.	254	46	201	168	3	16	24	6	5	26	62	65	129	126	2	31	95	37	25	102	41¼	18	81	⅛ in.	3 ins.	5.37 or about ⅝ in.	4.39 or about ½ in.
Condyles..............	7	1	6	3	..	2	..	...	...	1	2	...	5	2	...	1	4	...	...	....	....	...	...	....	....	....	....
Summary of Totals and Condyles............	322	69	246	218	3	21	21	6	5	38	81	79	164	150	8	40	121	40	25	102	41 3/10	18	98	⅛ in.	3 ins.	5.38 or about ⅝ in.	4.55 or about ⅝ in.

In addition to the above there is 1 case of simple comminuted and complicated fracture of the lower third; 2 cases of compound comminuted and complicated of the middle third; and 4 comminuted, other characters of which not stated, 1 in the upper third, 2 in the lower third, and 1 of the condyles.

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[1] Sex not recorded in four cases of middle third, one case of lower third, and two cases of point fracture not indicated.
[2] One of these cases a gunshot wound.
[3] This case had a simple fracture of the other thigh also, with the additional complication of fracture of skull.
[4] One of these cases was a double fracture.

Treatment exclusively by Buck's extension. I was present at a critical measurement of the limbs, and can vouch for its accuracy.

Of fracture of the shaft 81 cases resulted in shortening, 12 in the upper third, with an average shortening, excluding limbs not-shortened, of about ⅞ of an inch; including limbs not-shortened, about ¾ of an inch. In the middle third there are 54 shortened limbs, with an average shortening, excluding limbs not-shortened, of ⅝ of an inch; including limbs not-shortened, about ½ an inch. In the lower third 9 cases, excluding limbs not-shortened, the average shortening is ⅝ of an inch; including limbs not shortened, ½ an inch. Of the 81 cases with shortening, the least shortening is ⅛ of an inch, the greatest shortening 3 inches; the average, excluding cases not-shortened, is about ⅝ of an inch; including cases not-shortened, about ½ an inch. In the summary of fractures at all points of the femur the actual difference in the averages of shortening, excluding and including cases not-shortened, is shown to be not quite ⅛ of an inch, or .83 of an eighth.

Fractures of the condyles are but few, there being but 7 cases in 322, recorded as such.

It may be noticed that in my column of not-shortened there is one case less than appeared in the table published in the *New York Medical Journal* for last October. This was a case of double fracture in which union had taken place with both limbs of the same length. This result, however, does not imply that there was no shortening, so I have excluded the case from the column of not-shortened in these tables.

Table B, having reference to the character of the fracture, contains percentages of non-union and deaths, averages of the time the splints were kept on, and of

TABLE B, HAVING REFERENCE TO THE CHARACTER OF THE FRACTURE.

Character of Fracture.	No. of Cases.	Non-union.		Death.		Time the splint was on.		Time patients were in hospital.		Shortening.			
		No. of Cases.	Per cent.	No. of Cases.	Per cent.	No. of Cases.	Average No. of Days.	No. of Cases.	Average No. of Days.	Not shortened.	Shortened.	Average, excluding Not Shortened, in eighths of an inch.	Average, including Not Shortened, in eighths of an inch.
Simple..............	218	6	2.75	7	3.21	35	$41\frac{3}{5}$	38	$67\frac{1}{4}$	15	74	5.09 or about $\frac{5}{8}$	4.23 or $\frac{1}{2}$
Simple Comminuted..	3	....	......	....	......	....	....	....	....	....	1	6. " $\frac{3}{4}$	6. " $\frac{3}{4}$
Simple Complicated..	21	....	......	10	47.61	1	35	4	$70\frac{1}{2}$	1	3	10. " $1\frac{1}{4}$	7.5 " 1
Simple Comm. Compl.	1	....	......	1	100.	....	....	....	....	....	....	....	....
Total, Simple, etc....	243	6	2.46	18	7.4	36	$41\frac{2}{5}$	42	$67\frac{1}{2}$	16	78	5.29 or $\frac{5}{8}$	4.39 " $\frac{1}{2}$
Compound	24	1	4.16	11	45.83	1	43	1	82	1	4	3.75 " $\frac{1}{2}$	3. " $\frac{3}{8}$
Comp. Comminuted..	6	....	......	2	33.33	....	....	....	....	....	2	7. " $\frac{7}{8}$	7. " $\frac{7}{8}$
Comp. Complicated ..	5	....	......	2	40.	1	30	....	....	....	....	....	....
Comp. Comm. Compl.	2	....	......	1	50.	....	....	....	....	....	....	....	....
Total, Compound, etc.	37	1	2.70	16	43.23	2	$36\frac{1}{2}$	1	82	1	6	4.83 or $\frac{5}{8}$	4.14 " $\frac{1}{2}$
Comminuted.........	4	....	......	....	......	....	....	....	....	....	1	4. " $\frac{1}{2}$	4. " $\frac{1}{2}$
Not Stated..........	38	1	2.61	6	15.78	2	45	3	[1]158	1	13	6.30 " $\frac{3}{4}$	5.85 " $\frac{3}{4}$
Summary of Simple. Comp., Comm., and Not Stated........	322	8	2.48	40	12.42	40	$41\frac{\,}{10}$	46	$73\frac{7}{10}$	18	98	5.38 " $\frac{5}{8}$	4.55 " $\frac{5}{8}$

[1] One case in hospital 358 days makes this average high.

the time that patients remained in hospital—the latter always referring to patients that were discharged cured; and averages of shortening. This table also brings out very strongly the fact that in several points there is very little difference in the results of treatment of simple and compound fractures.

There are 243 simple and 37 compound fractures, including their various subdivisions. The percentages of non-union are about the same in both, being 2.46 per cent. in simple fractures, and 2.7 per cent. in compound. In the percentages of deaths there is, however, a striking difference: in simple fractures there are 7 per cent. of deaths, while in compound fractures the deaths are 43 per cent. With regard to the time the splints remained on, as indicating the time required for the bone to unite, the statistics under compound fractures are too meagre to be of any value; the treatment also being so much more complicated no comparison is admissible. The average of 36 cases of simple fracture is $41\frac{2}{5}$ days, or about 6 weeks, as the approximative time required for a simple fracture to unite; add to this about 4 weeks' convalescence, and we have 10 weeks, the average time that the patient remains in the hospital.

As to the shortening, there is no appreciable difference in the results. I find 16 cases of simple fracture without shortening, and 1 compound. Of shortened limbs there are 78 simple, 6 compound, and 1 comminuted. The shortening in both simple and compound fractures, excluding not-shortened, is about $\frac{5}{8}$ of an inch; including not-shortened, about $\frac{1}{2}$ an inch. The comminuted fracture had but $\frac{1}{2}$ an inch shortening.

In Table C I have made the age of the patient the basis of my observations. Separating the ages into decades, in each decade I have given the number of cases under each age, the sex, point of fracture, result as to cure, the time the splint was on, the time the patient was in hospital, and averages of shortening. Fractures occur most often in the 1st, 3d, and 4th decades, reaching the highest number in the 4th decade.

Of the fifty-one cases in the 1st decade, 44 are of the middle third, 4 of the upper third, and 3 of the lower third. It is to be noticed that they are all fractures of the shaft of the bone. In the 2d decade there are 2 fractures of the neck, in addition to the larger number in the middle third. In the 3d decade 5 are of the neck; in the 4th decade, of 57 fractures 9 are of the neck, while fractures of the lower third reach their maximum, 10 cases. In the 5th decade there are 8 fractures of the neck to 19 of the middle third and 5 of the lower third, in 43 cases. In the 6th decade, of 40 cases, 14 are of the neck, 7 of the upper third, 11 of the middle third, and 7 of the lower; advancing years causing a gradual change in the location of the fracture. In the 7th decade, of 28 cases, 15 are of the neck, and but 4 of the middle third. In the 8th decade, of 9 cases, 7 are of the neck, and 2 of the upper third; and in the 9th decade, of 3 cases, 1 is of the neck, and 2 of the middle third.

An analysis of fractures of the neck, giving their percentages of the total number of fractures occurring in each decade, seems to me to show more clearly than by any other method the relative frequency of these fractures at different periods of life. The records bring them to our notice as follows:

	INT.-CAP.	P. CT.	EX.-CAP.	P.CT.
Between 10 and 20 years....	None		1 or	2.50
" 20 " 30 "	"		1 "	2.00
" 30 " 40 "	1 or	1.75	and 5 "	8.77
" 40 " 50 " ...	2 "	4.65	" 3 "	6.97
" 50 " 60 "	3 "	7.49	" 1 "	2.50
" 60 " 70 "	5 "	17.85	" 4 "	14.28
" 70 " 80 "	3. "	33.33	" 1 "	11.11

From the above tabular statement we learn that the percentage of extra-capsular fractures is far in excess

TABLE C, HAVING REFERENCE TO AGE.

Age in Years.	No. of cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Result not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	No. of cases not shortened.	No. of cases shortened.	Average excluding not shortened.	Average including not shortened.
2	1	1	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	12.	12.
2½	1	1	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	2.	2.
3	3	2	1	...	...	3	...	...	...	3	..	...	2	...	...	1	2	37½	...	...	...	2	4.5	4.5
3½	2	...	2	...	...	2	...	...	...	2	...	...	2	...	...	...	1	29	...	...	...	2	3.	3.
4	3	...	3	...	1	2	...	...	...	1	1	...	2	...	1	...	1	30	...	...	1	1	4.	2.
5	4	1	3	...	...	4	...	...	...	4	...	...	3	...	...	1	1	27	1	49	2	1	4.	1.33
6	10	1	8	...	...	10	...	...	...	9	1	...	7	...	2	1	1	38	3	59⅓	3	1	4.	1.
7	5	2	3	...	1	3	1	...	...	5	...	...	2	...	...	3	2	34	2	45	1	...	...	...
8	6	...	5	...	1	5	...	...	...	4	...	...	5	...	...	1	2	34½	2	50½	...	5	2.2	2.2
9	5	2	3	...	1	4	...	...	...	4	1	...	4	...	1	...	3	34⅔	1	73	...	3	5.33	5.33
9½	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
10	10	2	8	...	...	9	1	...	...	6	2	...	7	...	1	2	...	...	1	63	...	6	4.16	4.16
Totals	51	12	37		4	44	3			40	5		36		5	10	13	31	10	55½	7	23	4.04	3.1

NOTE.—In two cases, one of 6 and the other of 8 years, the sex is not recorded. In addition to the simple and compound fractures given above, there are the following: one case of simple comminuted at 9½ years; two cases of simple complicated, one at 8, and the other at 10 years; two cases of compound comminuted, one at 8, and the other at 10 years; and one case of compound, comminuted and complicated at 4 years of age.

Age in Years.	No. of cases.	Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Result not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	No. of cases not shortened.	No. of cases shortened.	Average excluding not shortened.	Average including not shortened.
11	7	1	6	..	1	6	...	...	...	6	..	..	3	...	...	4	1	40	...	...	1	2	5.	3.33
12	2	...	2	...	...	2	...	...	...	2	...	...	2	...	...	...	1	38	1	47	1	1	6.	3.
13	4	...	4	...	...	4	..	...	...	3	...	...	...	...	1	3	...	...	...	...	...	...	...	...
14	5	...	5	...	1	4	...	...	...	2	1	1	2	...	...	3	...	...	...	...	...	2	5.	5.
15	3	...	3		...	1	2	...	...	1	...	.	2	...	...	1	1	45	2	61½	1	1	1.	0.5
16	4	...	3	...	...	4	..	...	...	3	...	...	3	...	...	1	...	..	1	57	...	2	5.	5.
17	4	...	4	...	...	4	...	...	...	3	...	...	...	...	...	4	...	...	...	...	...	...	...	...
18	2	...	2	...	...	2	...	...	...	1	...	...	1	...	...	1	1	51	...	...	...	1	6.	6.
19	1	...	1	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
20	5	1	4	1	...	2	2	...	...	2	...	...	5	...	...	...	...	...	1	88	...	4	6.2	6.2
Totals	37	2	34	2	2	29	4			24	1	1	18		1	18	4	43½	5	63	3	13	5.23	4.25

NOTE.—One case of 16 years, sex not recorded. One extra-capsular fracture of the neck at 20 years. One simple comminuted fracture at 14 years, and one at 20 years. One simple complicated at 11 years, one at 13, two at 15, and one at 16 years. One gunshot fracture at 18 years. One compound comminuted at 17 years and one at 20 years. One comminuted, other characters not stated, at 20 years.

Age in Years.	No. of cases.	Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Result not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	No. of cases not shortened.	No. of cases shortened.	Average excluding not shortened.	Average including not shortened.
21	2	...	2	...	...	2	...	...	...	2	...	...	2	...	...	..	1	42	1	58	...	...	...	...
22	2	...	2	...	...	2	...	...	...	1	1	...	...	...	...	2	1	43	...	...	...	...	...	...
23	6	...	6	...	...	6	...	...	...	5	...	...	3	...	...	3	...	...	1	76	2	...	...	...
24	6	3	3	...	3	3	...	...	...	4	...	2	3	...	1	2	...	...	...	...	...	4	6.5	6.5
25	2	...	2	1	...	...	...	1	...	2	...	...	1	...	..	1	...	...	...	...	...	...	...	...
26	5	...	5	...	1	3	...	1	...	4	...	1	2	...	...	3	...	...	2	77½	...	1	10.	10.
27	7	...	7	...	1	4	2	...	...	4	1	2	4	...	1	2	2	42½	1	67	...	3	4.33	4.33
28	9	...	7	1	...	5	...	2	1	5	3	...	4	...	2	3	1	40	...	...	1	2	3.	2.
29	3	...	3	2	...	1	...	...	...	3	...	...	1	1	...	1	1	29	1	70	...	1	6.	6.
30	8	...	8	1	1	5	1	..	...	5	1	...	3	...	2	3	1	35	...	...	...	3	3.	3.
Totals	50	3	45	5	6	31	3	4	1	35	6	5	23	1	6	20	7	39⅐	6	71	3	14	4.78	3.91

NOTE.—Sex not recorded in two cases 28 years of age. One extra-capsular at 25 years and one at 30 years of age. One simple complicated at 23 years, one at 28, and one at 30 years. One compound complicated at 30 years of age.

TABLE C, HAVING REFERENCE TO AGE.

Age in Years.	No. of cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in Hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	Not shortened.	Shortened.	Average excluding not shortened.	Average including not shortened.
31......	1	...	1	...	...	...	1	...	...	1	...	...	1	...	...	...	....	....	....	....	1	....	......	......
32......	5	...	5	1	...	1	2	...	1	2	...	...	1	...	2	2	....	....	....	....	....	1	4.	4.
33......	3	...	3	...	1	2	...	...	...	3	...	...	3	...	...	...	1	54	1	109	1	2	5.5	3.66
34......	1	...	1	...	...	1	...	...	...	1	...	...	1	...	...	...	1	35	1	55	....	...	......	......
35......	12	3	9	1	1	7	1	...	2	7	2	...	5	...	4	3	1	54	3	$82\frac{2}{3}$	....	4	6.25	6.25
36......	5	...	5	1	...	2	1	1.	...	2	1	...	2	...	2	1	....	....	1	82	....	1	10.	10.
37......	5	...	5	...	1	2	1	...	1	3	1	1	1	1	...	3	....	....	....	....	....	1	2.	2.
38......	3	...	3	...	...	1	2	...	...	3	...	...	2	...	...	1	2	$37\frac{1}{2}$	2	$53\frac{1}{2}$	....	1	6.	6.
39......	5	2	3	2	...	3	...	...	...	4	...	...	1	1	...	3	....	....	1	59	....	1	4.	4.
40......	17	3	14	4	2	7	2	...	2	11	1	4	6	...	1	10	2	$51\frac{1}{2}$	5	$92\frac{3}{5}$	....	3	6.66	6.66
Totals..	57	8	49	9	5	26	10	1	6	37	5	5	23	2	9	23	7	$45\frac{4}{7}$	14	$80\frac{1}{5}$	2	14	5.85	5.12

NOTE.—Included in fractures of the neck, are: 1 intra-capsular at 39 years, and 5 extra-capsular—1 at 32, and 4 at 40 years. In addition to the simple and compound, there are: 1 simple comminuted and complicated at 36 years; 5 simple complicated—1 at 32, 3 at 35, and 1 at 36 years; 1 compound comminuted at 32 years; 1 compound comminuted and complicated at 39 years; 2 compound complicated—1 at 32, and 1 at 49 years.

42......	2	...	2	...	...	1	...	...	1	1	...	1	2	...	...	...	....	....	1	57	....	1	6.	6.
43......	1	...	1	...	...	...	1	...	...	1	...	...	1	...	...	...	1	44	1	49	....	1	1.	1.
44......	2	1	1	...	2	...	...	...	...	1	...	...	1	...	...	1	1	30	....	....	....	....	......	......
45......	11	3	8	3	...	6	1	...	1	8	1	2	5	...	...	6	1	45	1	358	....	5	7.6	7.6
46......	2	1	...	...	...	1	...	...	1	1	1	...	...	...	1	1	....	....	....	....	....	....	......	......
47......	3	2	1	...	1	1	1	...	...	2	...	...	...	...	1	2	....	....	....	....	....	....	......	......
48......	4	1	3	1	...	2	...	...	1	2	1	1	2	...	1	1	....	....	....	....	....	1	12.	12.
49......	3	...	3	...	...	1	...	1	1	1	...	1	2	...	1	...	....	....	1	65	....	1	8.	8.
50......	15	7	8	4	...	7	2	1	1	13	...	1	8	1	1	5	2	49	3	64	1	5	7.4	6.16
Totals..	43	15	27	8	3	19	5	2	6	30	3	6	21	1	5	16	5	$43\frac{2}{5}$	7	103	1	14	7.28	6.8

NOTE.—Included in fractures of the neck, there are: 2 intra-capsular—1 at 48, and 1 at 50 years; and 3 extra-capsular—2 at 45, and 1 at 50 years. In addition to simple and compound, 1 simple complicated at 49 years, 1 compound complicated at 44 years, 2 comminuted, other characters not stated, 1 at 47, and 1 at 50 years. One case at 46 years, sex not recorded.

51......	2	1	1	...	2	..	...	...	...	1	..	1	1	...	...	1	1	102	1	104	....	1	8.	8.
52......	4	...	4	1	...	1	2	...	...	1	1	1	2	...	1	1	....	....	....	....	....	2	5.	5.
54......	1	...	1	...	...	1	...	...	...	1	...	...	1	...	...	...	1	44	....	....	....	1	1.	1.
55......	5	2	2	1	1	...	2	...	1	2	1	2	...	1	2	2	....	....	1	63	....	....	......	......
56......	2	1	1	2	...	...	...	...	...	2	...	...	2	...	...	...	....	....	2	$71\frac{1}{2}$	....	1	8.	8.
57......	1	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	1	35	....	....	....	....	......	......
58......	3	...	3	1	...	1	1	...	...	2	...	1	2	...	...	1	....	....	....	....	....	2	4.	4.
59......	4	...	4	...	2	2	...	...	...	4	...	...	1	...	...	3	....	....	1	75	....	1	12.	12.
60......	18	6	12	9	2	5	2	...	...	13	..	5	6	1	1	10	....	....	4	88	1	3	4.66	3.5
Totals..	40	10	29	14	7	11	7		1	26	2	10	16	2	4	18	3	67	9	$81\frac{8}{9}$	1	11	5.54	5.0

NOTE.—One case, in which sex is not recorded, at 55 years; intra-capsular fractures, 3—1 at 55, and 2 at 60 years; extra-capsular, 1 at years; simple complicated, 1 at 57 years; comminuted, other characters not mentioned, 1 at 52 years.

TABLE C, HAVING REFERENCE TO AGE.

Age in Years.	No. of cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	Not shortened.	Shortened.	Average excluding not shortened.	Average including not shortened.
61......	1	...	1	1	...	...	..	...	...	1	...	...	..	...	...	1	....	....	....	....	....	....	......	......
62......	4	...	4	4	...	...	...	...	...	3	...	1	2.	...	1	1	....	....	2	104	....	2	7.	7.
63......	2	...	2	1	1	...	...	...	...	..	...	1	1.	..	1	...	....	....	1	101	....	1	24.	24.
64......	2	1	1	1	1	...	...	...	...	1	...	1	...	...	...	2	....	..	1	103	....	....	......	......
65......	11	5	6	5	1	2	...	...	3	6	1	3	4	1	1	5	1	49	2	66½	....	2	4.	4.
67......	2	...	2	1	...	1	...	...	...	1	...	1	1	...	...	1	....	....	1	49	....	1	4.	4.
68......	1	1	...	...	.	...	...	...	1	1	...	...	...	...	...	1	....	....	...	....	....	....	......	......
70......	5	5	...	2	2	1	...	...	...	3	...	2	2	...	...	3	....	....	1	21	1	....	......	......
Totals..	28	12	16	15	5	4			4	16	1	9	10	1	3	14	1	49	8	63⅞	1	6	8.33	7.14

NOTE.—Intra-capsular fractures. 5—1 at 62, 1 at 64. 2 at 65, and one at 67 years; extra-capsular, 4—1 at 62, 1 at 63, 1 at 65, and 1 at 70 years. In addition to simple and compound—simple complicated, 1 at 63 years; componnd complicated, 1 at 65 years.

72......	2	...	2	1	1	...	...	...	...	1	...	1	...	. .	1	1	...	....	....	....	....	....	......	......
73......	1	1	...	1	...	...	...	...	...	1	..	...	...	...	...	1	....	....	....	....	....	....	......	......
74......	2	1	1	1	1	...	...	...	...	2	...	...	1	1	...	...	....	....	2	45	....	1	2.	2.
76......	1	...	1	1	...	...	...	...	...	...	...	1	...	...	1	...	....	....	....	....	....	....	......	......
77......	1	1	...	1	...	...	...	...	...	1	..	...	1	...	...	..	....	....	....	....	....	1	8.	8.
79......	2	2	...	2	...	...	...	...	...	...	...	...	...	...	2	...	....	....	...	....	....	....	......	.....
Totals..	9	5	4	7	2					5		2	2	1	4	2			2	45		2	5.	5.

NOTE.—Included in fractures of the neck are: 3 intra-capsular—at 73, 74, and 79 years respectively; 1 extra-capsular at 79 years. There are 2 simple complicated fractures at 79 years.

85......	1	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	....	....	....	....	....	....	......	......
87......	1	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	....	....	....	....	....	....	......	......
90......	1	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	....	....	....	....	....	....	......	.....
Totals..	3	2	1	1		2				1					2	1								

NOTE.—In addition to the simple fractnre there are, 1 simple complicated at 87 years, and 1 compound comminuted at 90 years.

There are four cases recorded in which the age is not stated—1 female and 3 male; 2 fractures at the middle third, and 2 point not stated; all were simple. Union was recorded in 1 case; death in 1, and in 2 cases result not stated. Shortening recorded in 1 case of 2 eighths.

of that of the intra-capsular, up to and including the 4th decade; they are about equal in the 5th decade, and beyond this period the intra-capsular are of more frequent occurrence.

Regarding the character of the fracture, the largest proportionate number of simple fractures is in the 1st decade, 43 cases in 51; the compound fractures being in about the same proportion in the 1st, 3d, and 4th decades.

No case of non-union is recorded until the 29th year, when we find 1 case; then as follows: 1 at 37 years; 1 at 39 years; 1 at 50 years; 1 at 55 years; 1 at 60 years; 1 at 65 years; and 1 at 74 years.

The time the splint was on, or time required for union of the fracture, is in the 1st decade about 4½ weeks; in the 2d decade about 6 weeks; in the 3d decade 5½ weeks; in the 4th decade 6½ weeks; in the 5th decade 6 weeks; in the 6th decade 9½ weeks, one case in this decade having the splints applied for 102 days makes this average high; in the 7th decade 7 weeks; in the 8th and 9th decades there is no record of this point. We find in each decade the usual 3 to 4 weeks of convalescence additional to complete the period in hospital.

With regard to shortening and no shortening, the best results were obtained under ten years of age, where out of 30 cases measured, 7 limbs were recorded as not-shortened; the average shortening, excluding cases not-shortened, being ⅞ of an inch, and including cases not-shortened ⅝ of an inch. The worst results are found in the 8th decade, where out of 7 cases measured 1 is recorded as not-shortened, the average shortening, excluding this case, being one inch, and including it, ⅞ of an inch. Between these extremes we notice that the cases in which there is no shortening gradually decrease in numbers as years advance, being 3 in the 2d and 3d decades respectively; 2 in the 4th decade; and 1 each in the 5th, 6th, and 7th decades. Excluding cases not-shortened, the shortening in the 2d and 3d decades is about ⅝ of an inch; in the 4th and 6th decades ¾ of an inch; in the 5th decade ⅞ of an inch; in the 7th decade 1 inch; in the 8th decade the statistics are so meagre that they show no positive results. Including cases not-shortened, in the 2d and 3d decades the shortening is ½ an inch; in the 4th and 6th decades ⅝ of an inch; in the 5th decade ¾ of an inch; and in the 7th decade ⅞ of an inch. The difference in the averages, excluding and including cases not-shortened, being about ⅛ of an inch, or actually .83 of an eighth, as we saw in considering Table A.

I have endeavored to bring out in the above remarks on the tables, the main points which they contain. They are, however, susceptible of still further intercomparison, which the limits of this paper would not properly admit of. In a note below each table there are additional cases, left out of the tabular forms to avoid occupying more space.

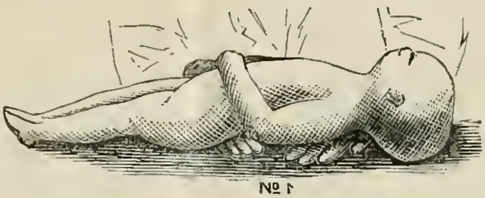
A "SPEEDY METHOD" IN ASPHYXIA.

By HARVEY L. BYRD, M.D., ETC.,

BALTIMORE, MD.

It is hardly necessary in an article like this to urge professional attention to the vast importance, in a medico-legal point of view, of establishing, even for a moment or two, the vitally necessary function of respiration in the newly-born infant. And whether a child be considered a "living soul" or not ere breathing occurs, all will agree that humanity calls loudly for prompt and efficient action at the hand of the officiating accoucheur for the development of the respiratory process in all cases where children emerge into the world in an asphyxiated condition.

Asphyxia is liable to be produced by a variety of causes; and every abnormal state or unusual circumstance occurring during labor likely to result in this critical and dangerous condition to the infant, should be carefully weighed by the attending obstetrician, so as to be prepared to promptly meet the emergency, should it arise. On the announcement to the profession of Dr. Marshall Hall's "ready method" in asphyxia, some years ago, and its practical application in a few cases, the writer thought there was very little, if any, further addition necessary to the list of remedial agents in the asphyxia of newly-born infants. Later experience, however, with this and subsequently published "methods," proved that, occasionally at least, all the then known appliances were futile, and further knowledge required to secure success in the management of this very dangerous condition of the infant. The following "method," it is believed, will be found a highly valuable, if not the most important addition to our list of appliances in the asphyxia of children, and also for the relief of that condition in the adult, when properly applied. The procedure is easy of accomplishment, and requires no preliminary arrangement or preparation for its application, but may be put into execution the moment the condition of the child may demand it. It is as follows: Bring the *ulnar* sides of the hands near together, with the palmar surfaces looking vertically, and place them beneath the back of the infant, so that the extended thumbs may aid, as far as possible, in sustaining the vertex and inferior extremities; then, keeping the *ulnar borders* near together so as to form a fulcrum, the radial borders or sides are simultaneously depressed to as great extent as practicable—say forty-five degrees—*below* the horizontal line, and then gradually pronated or elevated to as many degrees *above* that line, thus facilitating the escape of air drawn into the lungs during the downward movement of the head and chest. Or the hands are placed as at first, and passed *beneath* the body of the child—on its back—and the superior and inferior extremities furthest from the operator seized, one by each hand, near the trunk—the *ulnar borders* of the hands and wrists forming the fulcrum—the head of the child being kept at a proper axis with the movements of the chest by the hands of an assistant; and the depression and elevation of the head and lower extremities proceeded with as already described. These alternate depressions and elevations of the two extremities, performed in a regular and gentle manner, and repeated at proper intervals, seldom fail in establishing respiration where it is possible of accomplishment. The occasional dashing of cold water on the epigastrium during the *descent* of the head and chest will hasten respiration where the first few movements fail in its establishment. It is important that the head be kept, as far as practicable, from too much *lateral* movement, and not permitted to depart considerably from its *antero-posterior* axis with the vertebral column during the continuance of the process. To this end, in a critical case, the hands of an assistant may be brought into requisition. The importance of these remarks will be apparent to intelligent readers on a moment's reflection. No impediment should be *permitted* in the way of *free entrance* of air into the lungs during the *downward* movement of the head,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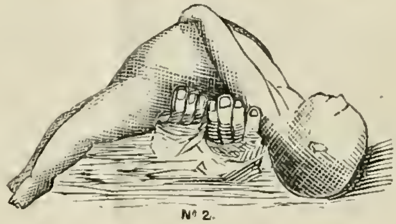
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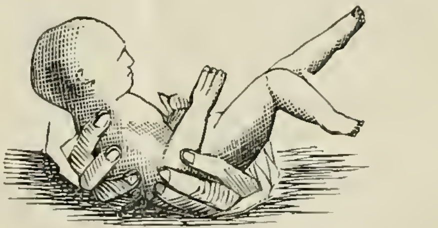
No 3

and it is *scarcely less important* that no *obstruction* should oppose the escape of air during the *upward* movement of the head and chest. The philosophy of the above-described movements will be easily comprehended by a glance at the accompanying wood-cuts. A nurse or other intelligent attendant can be made to understand the movements, so as to continue them should the condition of the mother demand the attention of the accoucheur. These movements will apply to the treatment of asphyxiated persons of *any age*, as has been practically demonstrated in several cases since the publication of my first article on the subject. Asphyxia from drowning has been promptly overcome in three instances since the question was asked in a former communication — on theoretical grounds — whether it would not act more promptly than *any other* method. It has been found that the "movements" are easily practised when the body is taken from the water and placed on its back across a barrel, trunk of a fallen tree, or other substance. Two persons can thus depress and elevate the extremities as often as necessary to expand and exhaust the air in the lungs, as in normal respiration. The epiglottis acts in these movements in a manner similar to the valve of an ordinary bellows when being used. Since the first article appeared—in 1870—on the value of the "speedy method," quite a number of cases of asphyxia have been treated by it, and its value thoroughly tested in my own practice, and in consultation with professional friends, and always with the most gratifying results. Further experience has proven that where a sufficiently large tub or basin of warm water can be had, the movements already described may be carried more easily into operation than otherwise. Care should always be had, of course, to avoid depressing the head to such an extent as to permit the water to enter the mouth or nostrils of the child during the operation. In practising the "method" *in the water* the head need not at any time be elevated above the surface—the body of the child alone being elevated or depressed—for the inflation and exhaustion of the air in and from the lungs. A number of cases could be recorded in favor of the method since the previous reports were made, but they are deemed unnecessary at this time. The object of this communication is to give greater publicity to a most important remedial procedure, and we may here repeat what has already been proven to be true by many practitioners, "that those who may have occasion to employ this method will agree with us that in the asphyxia of children it is the remedy *par excellence.*"

366 North Fremont St., *July* 2, 1875.

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The Richmond County Medical Society has elected the following-named officers for the year:—*President*, Dr. C. Henry King; *Vice-President*, Dr. Frank E. Martindale; *Treasurer*, Dr. Isaac L. Millspaugh; *Secretary*, Dr. Edward F. Arnoux; *State Delegate*, Dr. J. J. Van Rensselaer; *Censors*, Drs. A. L. Carroll, Theodore Walser, and R. H. Golder.

The Medical Department of the University of Nashville and Vanderbilt University have commenced building a hospital on the college grounds, which is to have a frontage of one hundred and sixty-two feet, and a height of two or three stories. It is to possess all the modern conveniences and improvements, and is to have accommodation for two hundred and fifty to three hundred patients.

The Homœopathists of Ohio have resolved to oppose the creation of a State Board of Health.

Progress of Medical Science.

Ovariotomy complicated with Pregnancy—Cæsarean Operation—Cure.—Mr. Thomas Hillas, at a meeting of the Medical Society of Victoria, Australia, held in December, 1874, gave the account of the following case: The patient, aged twenty-four years, single, was admitted to the Ballarat District Hospital June 4th, 1872. The history of her case was peculiar. She believed that she became pregnant in March, 1871. She was admitted to the lying-in ward of the Ballarat Benevolent Asylum in November, 1871, and after staying there until the following June, a consultation was held and she was discharged, her case being deemed ovarian dropsy, and not pregnancy. On her admission to the hospital she was examined by the staff, all agreeing that she was suffering from ovarian dropsy, and that it was a suitable case for operation. On June 13th, the patient being chloroformed, Mr. Hillas commenced the operation by an incision midway between the umbilicus and pubes. Mr. Hillas says: "On arriving at the peritoneum, I made a small opening into it, when out spurted a large jet of venous blood, which the pressure of the finger controlled. I came to the conclusion I had wounded, unwittingly, a gravid uterus, and feeling sure of this, I extended the first incision upwards to the umbilicus, when a large uterus rolled out on to the thighs, and the ovarian sac protruded." The latter was tapped, and about eleven quarts of fluid withdrawn. The pedicle was short and thick, and after being tied firmly with a double whipcord ligature, the clamp was securely applied and the pedicle divided, the ends of the double ligature being tied over the ends of the clamp. The question then arose, what was to be done with the uterus, which was all this time lying on the thighs, with a fœtus in it, and a wound through its muscles, probably into the placenta.

Some advised that the wound should be sewn up, and the organ replaced in the abdomen, but seeing that labor must soon come on, and thinking that rupture of the uterus would most likely occur at the seat of injury, Mr. Hillas decided to perform the Cæsarean operation, as being the most likely means of giving the patient a chance to recover. The uterus was incised to about five inches, and the placenta and a fœtus, alive and well developed, at about the eighth month of gestation, extracted. The wound in the uterus was then closed with silver-wire sutures, the cut ends being carefully tucked down into the incision. The uterus then contracted firmly. The wound of the abdomen was then closed, the clamp being left at the lower margin of the wound, and a good deal dragged upon. The right ovary was the one affected. The patient measured sixty inches around the abdomen before the operation. The sac and its contents weighed thirteen pounds. The patient vomited for about forty-eight hours after the operation, having been an hour under chloroform. This was relieved by morphia and ice, and on the fourth day all unfavorable symptoms abated. There was a discharge of pus from the lower portion of the wound, which ceased in about a fortnight, and then it completely healed. She was discharged, cured, at the end of six weeks. On July 3d, a month after the operation, she menstruated moderately for four days, and again on August 28th.

Mr. Hillas has seen her several times since, and reports her to be in perfect health.—*The Australian Medical Journal*, Melbourne, February, 1875.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor

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THE SMALL FEE SYSTEM.

From the very nature of the case it is presumed that physicians will never tire of interest in what concerns their pecuniary welfare. Whatever we may say of the honor and dignity of our profession, we cannot afford to lose sight of the fee which makes the position which we assume the more enjoyable. It is a well-accepted saying, that the practice of our profession rarely insures a fortune, the ordinary rule being a decent and respectable livelihood. This being the case, the question presents itself whether or not we are particular enough to collect all we can from our patients. As honorable men we should of course scorn to take advantage of the wealth of our patrons, but is it judicious and proper for us to ignore compensation from such as may not be pecuniarily competent to pay our ordinary fees? It is by many considered so undignified to accept a small fee, that sooner than do it they would give their services for nothing. Aside from the abuse of medical charity which such a course may engender, it is committing a wrong to the patient as well as to the physician.

In the first place, the patient naturally feels under obligation to a physician whom he has employed, and very naturally it is a duty, a privilege, and a pleasure to discharge it to the best of his pecuniary ability. Because he may be a poor man he should not be denied this right. Viewing the fee of the physician in the light of an honorarium, it is impossible to give to it any fixed value. The importance of the service cannot justify the measure of the reward, inasmuch as so many conditions and qualifying circumstances must be taken into account. This implies a latitude of discretion on our part which it is allowable to use, independent of any of the arbitrary provisions of the fee-bill. If, on the one hand, we may feel ourselves warranted in receiving extra compensation from the millionaire, we have an equal right to accept the mite of the poorer man. The same principle which holds good in one case is equally good in the other. We believe it is a mistaken policy on the part of medical men to decline to accept any fee because it may be disproportionately small to the degree and extent of the services rendered.

It is well known that many of our bills are not easy to collect, and if we add these to such as we decline to accept, because they appear by comparison too small to be of any account, we shall find that in the long run a good deal of hard professional work counts for nothing. We lose enough in the failure to collect what we may deem our legitimate fees to make us reasonably careful about the smaller and apparently insignificant ones. The mere fact of our taking a small compensation does not by any means prove that our services are not worth more, only that the patient is incapable of paying us more. Small and even insignificant fees are so much better than none at all, that it is a matter of surprise that they are not more frequently accepted. And after all, is it not perfectly proper that we should offset these against the larger sums of which we are so often cheated. In the aggregate they may amount to a very respectable sum. It has been asserted by a writer who has examined into the subject that many of the larger incomes of the leading practitioners abroad is due, in the main, to the steady and continual accumulation of the smaller amounts. Even in this country we have striking examples of the wisdom of this policy.

The President of one of the State Societies has advocated the charging of small fees to patients, who would otherwise be sent to our medical charities, for the purpose of creating a fund for the support of the widows and orphans of medical men. This is a very laudable object, but is only one of many to which we may be enabled to direct our energies and be none the poorer for the contribution. How many privations in a pecuniary point of view may be overcome by attention to these minor matters of money getting, and how many innocent luxuries can be indulged in to which as hard workers we are justly entitled.

The main object of a recognized tariff of prices is mutual protection; but by departing from the standard in the particular cases to which we refer, no harm can come. There is no encouragement to any system of underbidding or of cheapening medical services; the only proposition is to collect small fees which would otherwise be entirely lost.

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Royal Commission on Vivisection.—The following-named gentlemen have been appointed to act as Her Majesty's Commissioners to inquire into the practice of subjecting live animals to experiments for scientific purposes, and to consider and report what measures, if any, it may be desirable to take in respect of any such practice: Viscount Cardwell, Lord Winmarleigh, the Right Hon. W. E. Foster, M.P.; Sir J. B. Karslake, M.P.; Mr. T. H. Huxley, Professor of Natural History in the Royal School of Mines; Mr. John Eric Erichsen, and Mr. Richard Holt Hutton.

Reviews and Notices of Books.

THESES UPON THE NERVOUS SYSTEM, at the recent Concours of the École de Médecine de Paris. DR. R. LÉPINE ON LOCALIZATION IN CEREBRAL DISEASES.

THIS most interesting subject fell to the lot of Dr. Lépine, and has been treated by him in a very clever manner. His thesis is skilfully constructed and successfully condensed. The first chapter is taken up by a study of the main points in cerebral anatomy, by a review of recent successful localizations of functions by physiologists in the cerebral cortex, the cerebral peduncles, the sensorial centres, the corpora striata, optic thalami, and the corpora quadrigemina. In addition to the proof afforded by physiological experiment (Fritsch and Hitzig, Ferrier), pathological evidence in support of these localizations is brought forward in the shape of cases, some of the most striking of which are new and original. In this manner are studied the seats of lesions which may give rise to spasm (or palsy) in the facial muscles, in the face and arm, in the whole of one side of the body; those which may produce hemi-anæsthesia, with or without affection of special senses; those producing hemiopia, aphasia, crossed paralysis. Dr. Lépine inclines to the classic idea of the mode of decussation of fibres in the optic chiasm. A lesion of the radiating white fibres a a little outside of the thalamus opticus will produce hemi-anæsthesia, with participation of higher senses; if the lesion be lower down, upon or in the posterior part of the crus cerebri, common sensibility will alone be lost. In aphasia, lesion of the third (posterior) frontal convolution (of left side in right-handed people) is necessary.

In a second chapter the physiological and pathological data previously discussed are used to lay the foundation for the diagnosis of the seat of a cerebral lesion. In an appendix Dr. L. briefly reviews the possible localization of functional disorders, epilepsy, hysteria, chorea, migraine, insanity. A detailed bibliography relating to the anatomy and physiology of the brain, with extracts of important cases by other authors, closes the book. A plate is appended containing three figures, one representing the brain of the chimpanzee in profile, with Ferrier's centres for movements of hands, face, lips, legs, marked upon it; another is a profile view of the human brain, showing by means of dots the seat of localized lesions in three cases, by Dr. Charcot and the author, one case by Hitzig, and one by Wernher; the third figure exhibits seat of lesion just outside of thalamus opticus, having produced hemi-anæsthesia and hemi-chorea during life. Dr. Lépine's thesis is honorably characterized by just reference to German and English authorities; Hitzig and Ferrier are given their full share of credit, and J. Hughlings Jackson is shown to have preceded them both by pathological observations upon the cortex cerebri. We congratulate Dr. Lépine upon his thesis, and upon his success in obtaining the position of *professeur agrégé*.

ORTHOPÆDIA; OR, A PRACTICAL TREATISE ON THE ABERRATIONS OF THE HUMAN FORM. By JAMES KNIGHT, M.D., Physician and Surgeon in Charge of the Hospital of the New York Society for the Relief of the Ruptured and Crippled, etc. Published by G. P. PUTNAM'S SONS, New York. 1874.

THE book before us is an account of the plan of practice pursued in the treatment of deformities at the hospital of which the author is physician and surgeon in charge. He tells us in his introductory remarks, "that the subject-matter of this book may be considered as the varied and consolidated experience of many practitioners, modified by our own judgment."

All through the volume we find quite long quotations from the works of English surgeons, but they are one-sided, and do not express the real opinion of the authors in question. We fail to see the name of a single American surgeon, except the late Dr. Mott. Our author does not seem to find anything worth "modifying" on this side of the Atlantic.

The book begins with some "Remarks on Defective Physical Formation," then some chapters on Deformities of the Feet—Infantile Paralysis. In speaking of the latter, no notice is taken of any recent investigation in regard to its pathology. The author seems to be under the impression that no advances have been made in that branch for the last twenty years. He devotes fifty pages to the consideration of "Electricity as a Therapeutic Agent," with some remarks on galvanic cautery, the bearing of which on "orthopædial" we fail to see. Chapters on Lateral Curvature of the Spine, Rachitis, Hernia, Procidentia Uteri, etc., follow. He then makes some remarks on the pathology of disease of joints. In regard to that of the hip-joints he says, "that it is only in the *third* stage that we have the bones actually diseased," and "that in the *first* and *second* stage, the disease is mainly limited to the surrounding tissues, tending to indolent abscess, etc."

In regard to treatment, he places a roller around the joint over cotton batting, and allows the patient to go about. He regards the weight and pulley as only palliative, not curative, but actually injurious treatment, and states "that no such kind of treatment is *permitted* in this institution." In a chapter on Necrosis he says, "that the violence done to the recuperative process by splitting, sawing, and chiselling for the purpose of removing the sequestrum of decaying bone, often arrests normal tendency to cure, and impairs vitality to the extent of a necessity for amputation, which seldom saves life"!!

It is almost useless to add that he is no advocate of exsection of joints.

He devotes a short space to caries of the spine, and concludes the book with a chapter on tonics and their effect on the system.

He does not give any statistics as to the frequency in which the different kinds of deformity were found, nor does he give us any account of the result obtained from the plan of treatment he has pursued.

We had marked many other passages in the book which are as open to criticism as those we have noticed, but the above show the peculiar views in regard to pathology and treatment held by our author.

We are sorry that we cannot find anything to recommend in the book. There is a want of a good work on deformities, thoroughly up with the times. Not written for the purpose of impressing the profession that the author alone is competent to treat this class of diseases, but one written *for* the profession. Such a book will be welcomed by all, but we cannot see what benefit is to be gained by the multiplication of books like the one we have been considering.

PHYSICIANS' OFFICE CASE-RECORD AND PRESCRIPTION BLANK BOOK;

PHYSICIANS' POCKET CASE-RECORD PRESCRIPTION BLANK;

MEDICAL CHART OF TEMPERATURE, PULSE, RESPIRATION AND REGIONS.

THE Case-Record Company, of 224 Laurel Street, Cincinnati, O., have issued the above very convenient set of blanks for the use of physicians. The first and second differ mainly in size, and afford means for keeping, in the form of a "stub," copies of prescriptions and memoranda of the prominent features of each case. The Medical Chart is of foolscap size; one side of the sheet is ruled and arranged for the history of a case, to facilitate which a blank form heads the page. The opposite side of the sheet has an excellently arranged blank for recording the phenomena usually observed, and four outline figures of the thoracic and abdominal regions.

Jahresbericht über die Wirksamkeit der Augenklinik, von Dr. H. Schoeler, Docent an der Universität zu Berlin, im Jahre 1874. Berlin, 1875.

This brief report gives us the annual record of the eye clinic once presided over by Von Graefe, and later by Evers.

A grand total of 4,102 out-door patients were treated; 460 were received into the institution, and 366 major operations were performed. Cataracts to the number of 52 were removed by Graefe's method. Experiments were made on a number of cataract patients, in whom the results of the operation were very successful, to determine, by the aid of special apparatus, whether there was any accommodative power in an eye after the removal of the lens. Dr. Schoeler thinks he has demonstrated conclusively that there is no accommodation in a lensless eye.

Among the operations on the ocular muscles is the unique case of an advancement of the inferior rectus. The patient was 65 years of age; the right eye was blind from separation of the retina and consecutive cataract, and in the left there was a high degree of paresis of the inferior rectus, consequent on an injury received by the patient during childhood. The eye was drawn up to such a degree that the pupil was covered by the upper lid. Tenotomy of the superior rectus gave but little relief. After the advancement of the inferior rectus the pupil was so far recovered as to give the patient very useful vision.

Medical Vocabulary. Intended specially as a Book of Reference for the Student. By R. G. Mayne, M.D., LL.D., Author of "An Expository Lexicon of Scientific Terms," and J. Mayne, M.D., L.R.C.S. Edin., L.S.A., Author of "A Dispensatory," "Toxicologia," etc. Fourth Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1875.

This little volume, containing 459 pages, claims upon its title-page to be the bearer of explanations for "all terms and phrases used in the various departments of medical science and practice," etc., etc. One of the authors, in the preface, states without qualification that it has been the aim, in preparing this work, to keep pace with the "more and more scientific, more amalgamated and complex state the science of medicine is getting into every year," and how well the task has been performed we shall presently see.

The general arrangement and typography of the book are very good, and give the reader quite an extended account of the terms which have been introduced. When the book, however, is more closely examined it is found to be sadly deficient in words with which the modern medical student constantly meets, and this, notwithstanding the fact that the authors somewhat sneeringly deprecate the deficiency manifest in "much larger volumes." The first word we sought for in this "accessible key" was hyperplasia. Certainly this word is used frequently enough to entitle it to a place in this pretentious volume, but it has no abiding-place here. *Hyperopsia* is on duty, it is true, and by the aid of that we went on, but in vain did we search for typhlitis, peri-typhlitis, cyphosis, urosacin, neuroglia, myelin, etc., etc., words which are in common use among medical men, and should be found in a book that has been "revised and readjusted, items of recent date introduced, and redundancies withdrawn." It seems to us at least that this work could have been made far more valuable than it is, by omitting such redundancies as gasterangemphraxis (said to mean congestion of the *blood-vessels* of the stomach), hypohæmia (deficiency of blood), locodochium (lying-in hospital), hyalodeccrysis (escape of a part of the vitreous humor), with many others, and introducing terms more nearly within range of the common medical student.

The definitions also of very many of the more common terms which have been introduced are exceedingly unsatisfactory. For example, the term cirrhosis is given as a name for certain conditions of the *kidney only;* apoplexy is defined to be a "sudden arrest of sense and motion;" and death is spoken of as "real, not *apparent* death, but extinction of bodily life," etc., etc. We trust that these references are sufficient to give the reader an idea of what was contemplated by the authors of this book, also an idea of what has been accomplished, and we will therefore leave the subject by asking him to make his own inferences.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 9, 1875.

Dr. Francis Delafield, President, in the Chair.

FIBROMA OF THE BREAST.

Dr. Finnell presented a tumor about the size of a hen's egg, that had been removed from the breast of an unmarried woman, twenty-five years of age. About seven years ago she noticed a small nodule in the organ just at the edge of the nipple, which gradually enlarged and elongated until finally a pedicle was formed about three inches in length. The tumor was not vascular, but was nourished by an artery of considerable size. It was painless, and gave the patient no special inconvenience, but during the last year had grown quite rapidly. From the size of the artery it was thought that the tumor would have grown much larger had it not been removed. When removed, a ligature was first placed upon the pedicle, and the operation was performed without hemorrhage. The length of the pedicle was one of the peculiar features of the growth. It presented a beautiful cauliflower specimen.

Dr. Draper inquired of Dr. Delafield if the tumor did not present an unusual appearance for a fibroid growth.

Dr. Delafield remarked that it did not present an unusual appearance for that variety of fibroid. Such pendulous tumors of the skin are really hypertrophies of the skin as much as anything, like large warts, and might, perhaps, with propriety be called papilloma, but at the same time they contain more or less of connective, and sometimes mucous tissue.

CHRONIC HEART DISEASE—ANEURISM OF THE CAROTID.

Dr. W. H. Draper presented a specimen of cardiac disease and aneurism of the carotid artery removed from the body of a man æt. 36 years, who died at Roosevelt Hospital, June 9, 1875. The specimen was accompanied by the following history, prepared by the house-physician:

Thomas Dullart, æt. 36, Ireland, married, hackman. Admitted May 13, 1875.

Family history good.

Patient has never been an athlete, has always been a hard worker, but never had work that caused sudden exertion.

Ten months ago he noticed a lump on the left side of his neck, which pulsated, but never caused him any pain or any alarm.

With the exception of this lump he was perfectly well up to six months ago, when he caught cold and had a little cough; great dyspnœa and pain over the epigastrium and præcordium.

At this time his voice began to change, being sharper in pitch, and he had a feeling as though something was pressing on the trachea.

These symptoms steadily increased, and he also suffered severe pain over the left chest in front.

The pain extended to the right shoulder, and over the right chest anteriorly; has never had any pain behind.

The pulsating tumor in the neck grew rapidly, and became painful when pressed on by the overlying muscles.

There is no history of renal or hepatic trouble.

Present condition: well nourished; appetite poor; tongue clean; bowels constipated; pulse 120; temp., 98½° F.

Urine acid; 1018; albumen 15%; oxalate lime.

May 14.—Examined by Dr. W. H. Thomson.

Very loud bruit under both scapulæ behind, especially under inferior angle of right. Bronchial respiration over right lung posteriorly. Murmur best heard at the root of the right innominate, of an aneurismal character, heard as low as the right nipple. Intercostal pulsation down to the right nipple.

Apex beat one and one-half inches to left of left nipple, in seventh intercostal space one and a half inches below left nipple.

Diagnosis.—Aneurism at the juncture of the innominate and aorta, dislocating the heart to the left.

May 17.—There is an aneurism of the left carotid, which is increasing rapidly in size; the pulsation can be controlled by pressure on the artery below the tumor.

May 20.—Patient has been growing anasarcous for the past few days, his legs, abdomen, and arms are involved. Complains of great dyspnœa and pains.

May 30.—Œdema has increased to an enormous extent, and causes great discomfort. Over the left thigh and leg there has spread an erythematous redness, which is glistening and very painful.

June 6.—Examined by Dr. W. H. Draper.

Auscultation.—Respiratory murmur and vocal resonance cease at the inferior angle of the right scapula. Moist râles over the left side posteriorly. Feeble respiration below the angle of the scapula.

Apex beat five inches to left. Loud systolic murmur heard best to the left of left nipple in sixth intercostal space; also distinct in the second intercostal space, one and a half inches to the left of median line. Heart dulness extends to one inch to left of left nipple.

No swelling above sternum, in sternal notch; no pulsation; no thrill.

Diagnosis.—Aneurismal expansion of the arch of the aorta. Aortic and mitral regurgitation.

Ventricular hypertrophy and dilatation.

June 8.—Dyspnœa increasing; patient becoming cyanotic.

June 9.—Died at 7 A.M.

Autopsy made by Dr. Francis Delafield twelve hours after death.

Brain.—Not examined.

Heart.—Two pounds. Both ventricles dilated and hypertrophied; aortic and mitral valves atheromatous, thick and short; endocardium of left ventricles below mitral valves much thickened; aorta atheromatous, not dilated.

Aneurism size of pigeon's egg of left common carotid just below bifurcation.

Lungs.—Right pleura two-thirds full of serum, recent fibrin. Left pleura one-fourth full of serum. Lungs pigment induration.

Liver.—Small—nutmeg.

Stomach.—Congested, and coated with mucus.

Kidneys.—Large, hard, smooth.

Spleen.—Large and firm.

Dr. Draper remarked that this specimen presented considerable interest clinically, for here was a man who first noticed a pulsating tumor upon the neck ten months ago, and upon close examination gave no subjective symptoms of cardiac disease prior to that time. At that time there was no dyspnœa upon exertion, or other symptoms referable to the heart. Six months ago he began to suffer from dyspnœa and other evidences of obstructed circulation through the lungs, but the symptoms then, it was thought, indicated the development of some disease of an aortic rather than of cardiac character, and the objective symptoms also seemed to point in that direction. When, however, Dr. Draper examined the patient, June 6th, from the general anasarca, he was impressed with the idea that the patient was in the last stages of cardiac disease, and of a mitral character. Physical examination also seemed to point to that condition rather than to aneurism. There were evidences of extreme obstruction to the venous circulation; there was fluid in the serous cavities, and at the same time there was no pressure upon the trachea and œsophagus, and for these reasons he was inclined to doubt the existence of an aortic aneurism, and upon examination no thrill nor bruit was detected. The post-mortem reveals simple valvular disease of the heart, with marked hypertrophy, and a carotid aneurism. There is also a moderate dilatation of the aorta, which, perhaps, would have passed unnoticed had he not been impressed with the idea that an aneurismal dilatation would be found when post-mortem was made.

CARCINOMA OF THE BREAST.

Dr. W. H. B. Post exhibited a mammary gland removed sixteen days previously from an unmarried woman, aged forty years. Her menses ceased about one year ago. About fourteen months ago she received a blow upon the breast from a heavy iron bar, which was followed by considerable inflammation. This soon subsided, however, and a short time afterwards she noticed a small tumor, about the size of a marble, upon the sternal edge of the mamma, which remained almost stationary for six months. At the end of that time it began to increase in size rapidly, and when of the size of a hen's egg an operation for its removal was advised, but declined by the patient. About one month ago the patient desired the operation, but it was disapproved of for two reasons: (1) because the skin had become so closely adherent to the tumor; and (2) because the axillary glands had become involved. The woman, however, insisted upon having the operation performed; and after consultation with Dr. A. C. Post it was decided to undertake it. For several months previous to the removal of the breast the patient had suffered extreme pain, and was almost unable to take nourishment. Sixteen days after the operation the pulse is at 104, has not been above 110, and the wound is nearly filled with granulations. The wound left was about eight inches in length in one direction, and about six inches in the other, and is a large, open, granulating surface.

She takes nourishment and medicine well, and suffers no pain. According to a suggestion of Dr. Atlee the patient is taking Fowler's solution in small doses, which will be continued for at least one year.

There was no hereditary history of cancer. Microscopical examination had not been made.

Dr. Delafield remarked that a peculiarity of the tumor was the hypertrophied condition of the skin seen at different places.

Dr. A. C. Post remarked that while the operation was being performed the universal adhesion of the skin to the tumor, as well as its great induration, attracted special attention.

NECROSIS OF THE LOWER JAW.

Dr. A. C. Post presented a specimen of dead bone removed, June 5th, from the lower jaw of a child nine years old. The disease of the jaw had presented itself without any obvious cause. The mother of the child regarded it as the result of toothache, and it was probable that inflammation of the periosteum extended from the affected tooth. A portion of dead bone was found projecting through the gums, and was removed with a pair of strong forceps. Several forming teeth were involved in the disease. As is the case ordinarily when necrosis of the lower jaw occurs, there was a large amount of involucrum formed. When the disease affects the upper jaw, as a rule, scarcely any involucrum is formed.

CARDIAC HYPERTROPHY—CHRONIC BRIGHT'S DISEASE—THICKENED PLEURA—HEMORRHAGE INTO THE PLEURAL CAVITY.

Dr. J. H. Pooley exhibited the thickened pleura, the kidney, and the heart, removed from the body of a patient who died in the St. John's Riverside Hospital, June 8th. The patient was a remarkably large and powerful man. He gave a history of specific disease, and had been addicted to the use of alcohol for years. He had also suffered from several attacks of ascites and general dropsy.

Autopsy twelve hours after death.

Rigor mortis well marked. Body emaciated. Considerable serum in the abdominal cavity. Liver fatty. Right kidney atrophied; surface made irregular by deep depressions, giving the organ a lobulated appearance. Left kidney increased in size and somewhat lobulated.

There was a large accumulation of serum in the left pleural cavity. The heart was dislocated, and considerably hypertrophied, but there was no marked evidence of valvular lesions, although the aorta and all the large arteries of the body were atheromatous. The pleura of the right chest was thickened to a most extraordinary extent, was firmly adherent to the costal surface, and exhibited distinct indentations made by the ribs. The lower portion of the right pleural cavity contained a large loose reticulated clot of blood, which had compressed the lung to a considerable extent. The source of the hemorrhage was not found.

There were evidences of recent meningitis.

Dr. Draper inquired if any articular enlargements were present.

Dr. Pooley replied in the negative.

Dr. Knapp remarked that the thickened pleura had an appearance as though composed of smooth muscular fibres.

Dr. Pooley raised the question as to the probable explanation of the hemorrhage into the right pleural cavity, which was, perhaps, the immediate cause of death.

Dr. Delafield remarked: "Might not the hemorrhage have come from the new blood-vessels in the thickened pleura? There must be new vessels in the new layer of tissue which had been formed, and it is the case, sometimes, that such thickened pleuras are composed almost entirely of blood-vessels. This man, it seems, had a condition of the heart which favored a constant state of venous congestion, which, together with the vascularity of the new pleural membrane, could explain the hemorrhage.

"With regard to the peculiar appearance of the kidneys, concerning which Dr. Pooley has made inquiry, the deep depressions are probably the result of cicatricial contraction, due to the existence of old infarctions at these points. There are evidences of quite a recent infarction in one kidney, and the condition of heart present is one favorable to the development of such a condition. There is, in addition, evidence of chronic Bright's disease."

Dr. Finnell remarked that one kidney might be said to be hypertrophied, while the other was atrophied, or, if you choose, cirrhotic.

Dr. Delafield remarked that in a certain sense that was true.

Dr. A. C. Post remarked: "Is it not probable that as one kidney became atrophied, the other became increased in size to supplement it?"

Dr. Delafield remarked that it might be so, but that it was difficult to say how much the change depended upon such a condition in cases of chronic Bright's disease.

Dr. Delafield asked Dr. Heitzmann what his explanation would be for the condition of kidney seen in this case.

Dr. Heitzmann replied that he regarded the deep depressions and elevations as characteristic of atrophy secondary to croupous nephritis.

Dr. Delafield did not think the atrophy secondary to any form of chronic Bright's disease could produce such deep cicatricial depressions as seen here. Such changes made the nodular kidney, but they do not give rise to the deep depressions.

Dr. Heitzmann remarked that he did not wish to exclude infarctions from the problem, but that he had seen such condition as was present in these kidneys, the result of secondary atrophy, following pure croupous nephritis.

EPITHELIOMA OF THE CONJUNCTIVA.

Dr. Knapp presented a specimen of epithelioma of the conjunctiva, removed from the eye of a colored woman about thirty years of age. When eight or nine year's old she suffered from violent inflammation of both eyes, but from this she entirely recovered. About three months before coming under observation she received a blow upon the eye, which was followed by violent inflammation, and since that time the eye has steadily increased in size. When first seen the eyeball had a swollen appearance, and the lids were held apart by a fleshy-looking, easily-bleeding mass, which protruded through the palpebral fissure. The cornea was not perceptible, and the conjunctiva could be reached only by forcible exposure of the outer and upper portion of the globe. The posterior limit of the globe could be made out, and the tumor was evidently attached to the eyeball near its equator. The conjunc tiva of the lids were healthy, and the posterior portion of the globe offered some resistance to the touch.

The ordinary operation of enucleation was performed, and the posterior part of the globe was found in a perfectly healthy condition. The wound healed without the slightest reaction. The eyeball itself showed a portion of detached retina, which stretched across the vitreous and attached itself to the anterior portion of the globe. The cornea had disappeared for about two-thirds its extent, and at one point there was a perforation through which the choroid prolapsed. Whether the perforation was the result of the injury or of ulceration of the cornea, he was unable to say, but regarded it as the probable result of the injury, for the reason that there was but little change in the tissue of the iris. Upon the sclerotica and upon the cornea there was located a consistent pseudoplasm which started distinctly from the epithelium of the sclerotica. Upon microscopical examination the bulk of the tumor was found to be composed of epithelial cells cemented together without any intervening substance, presenting the same appearance seen in the outer layers of the skin. In some places the epithelial cells were grouped. In some places there were seen the same kind of nuclei as seen in the epithelial cells, imbedded in a more or less granular matrix, representing the structure of the rete Malpighii. In no place was fibrous tissue found. It was a true epithelioma. The operation was performed four months ago, and to all appearance the patient is perfectly well. How long perfect recovery may remain was simply conjectural, but he regarded the prognosis as favorable. An interesting feature of the case was its evident traumatic origin.

Dr. Delafield inquired if no stroma at all was found in the tumor.

Dr. Knapp answered that there was none. In the places where the nuclei were imbedded in a homogeneous granular mass, more or less of blood-vessels were found.

Dr. Delafield inquired if he would call the tumor an epithelioma when it consists simply of an accumulation of epithelial cells.

Dr. Knapp answered in the affirmative.

Dr. Delafield remarked that a simple accumulation of epithelial cells constituted a wart, while in an epithelioma there is a stroma and more or less of blood-vessels.

The Society then went into executive session.

Correspondence.

HOMŒOPATHY IN OUR MEDICAL SCHOOLS.

To the Editor of The Medical Record.

Dear Sir:—Any one who has had occasion to see much of the literature of the sect of homœopathists cannot have failed to be impressed with the fact that next to the fallacy of their theory of cure, as a sufficient basis for a system of medical practice, their characteristic is a woful ignorance of matters which may be classed among the essentials of a knowledge of medicine. Excepting a few individuals who have obtained their education in medicine at regular and respectable antipathic schools, most of this class of physicians are educated in and obtain their degrees from schools in which the teachers are either half-educated men, who are no more competent to give correct instruction in their several branches from knowledge which they possess of the subjects than any one of the majority of second-course students in our best schools would be, or else they are men of fair capacity, who, as a means of securing patronage, profess to adopt homœopathy as a system of practice, while in truth their practice belies their professions.

If it is true that the religious belief of a mother determines, in the majority of instances, that of her children, notwithstanding the fact that teachers of other creeds and forms of worship abound in every community and are to be listened to almost daily, is it strange that, in commencing the study of medicine—which has no authorized instructors of the public—young men, who have no other means of knowing the differences between, or value of, therapeutical theories than such as are available to the general public, should be influenced by homœopathic associations and relationships, and by the statements which are constantly appearing in the secular and religious papers complimentary of the liberality and scientific advancement of this sect, and directing attention to the success of its members in practice? It is not to be doubted that a considerable number of young men enter homœopathic schools in the honest belief that in so doing they are taking all right and proper measures for acquiring a good knowledge of the science and art which they intend to practise.

To suppose, however, that all these men pursue the course on which they have set out, is a mistake, as I know from several instances to the contrary. Indeed, an article appeared not long ago in The Medical Record, showing, by statements copied from an English homœopathic journal, that in Great Britain the control is lost of the professional course of their young men, as they become advanced in their studies, to the extent that it has been found difficult to find competent men to fill vacancies occurring in the resident staffs of the hospitals and dispensaries which it has cost the homœopathists so much trouble and expense to establish.

That the standard of qualification for a degree must be very low in the homœopathic schools of this country, I think no one can doubt who looks over the books and journals which are current among them, or considers the quality of the men who compose their faculties. That this standard is likely to be raised by the schools themselves is not very probable when such antipathic schools as we have among us are open to the suspicion of obtaining large classes by maintaining low standards of qualification.

In view of the condition of affairs which I have described, and which I believe to exist, I can see no occasion to regret the action of the Board of Regents of the University of Michigan.[*] I believe that the establishment of the homœopathic branch of this school will meet with quite as much opposition from homœopathic schools and their sympathizers as it has previously received from the friends of the Ann Arbor school, for the very reason that the low fees, the prestige of the University diploma, and the establishment of a hospital will tend to lessen the patronage of these other schools.

In no other institution in the country could the union have been effected with so favorable a prospect of a triumph for legitimate medicine. This is one of the only two schools we possess where any preliminary qualifications are required and the salaries of the professors are to any extent independent of the size of the class, and one of the very few in which the manner of conducting the examinations is open to inspection. The attendance on lectures and clinics other than those given in the homœopathic department cannot fail to insure for the homœopathic matriculants as thorough a knowledge of the fundamental branches of medicine and surgery as has for years been acquired by the students in this department of the University. With so good an opportunity to insure a thorough acquaintance with these branches the "homœopathic" professors are welcome to teach them as much or as little as they please about the action of remedies. That is a subject about which the best of us know too little to make us very sure of our ground in a discussion. Let us have the opportunity of teaching them to make a correct diagnosis, and their patients are not very likely to suffer at their hands in the way of treatment. As to what will be the effect upon their future course in practice, after the homœopathic students have been brought into contact with the professors of the "mixed faculty," I have too high an opinion of the character of the present faculty to entertain any doubt, providing they attend strictly to teaching their several branches and leave the "homœopathic faculty" to take care of its own interests and questions.

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[*] This letter was written before our correspondent had an opportunity for seeing Prof. Dunster's correction in our last issue.—Ed.

Already homœopathists appreciate the situation, and are either declaring the plan proposed to be unjust, insisting upon a distinct school in which they can teach homœopathic anatomy, chemistry, and physiology, and homœopathic surgery, obstetrics, and jurisprudence, or are calling for the utmost circumspection in the choice of *the* two men who are to bear the responsibility of the success or failure of the scheme which they have so long striven to accomplish, and which, having been achieved, places them in a worse plight than before. While the plan of a homœopathic chair in the faculty was vigorously opposed they grew eloquent over their supposed wrongs, and gained a sort of reputation as martyrs in a noble cause. Now that they have all that they confess they are entitled to, let us see what they will do about it. The harm that is likely to result from the introduction of two more votes into the faculty I fail to appreciate. As to the establishment of an entirely independent homœopathic school, I think we have reason to remonstrate. We have altogether too many already for the good of science. VINDEX.

CONTAGIOUSNESS OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—A few cases of diphtheria have recently occurred in my practice which strongly illustrate the contagious power of this fearful disease.

In one family there occurred five cases, four of which proved fatal to children with the respective ages of two, five, seven, and nine years, contracted on this wise: A brother, aged eleven years, visited the family of his uncle, in which the disease was present in one member of the family. The visit was prolonged but a single day. Three days after returning home, he was seized with sore throat, with the characteristic exudation, and successively, in periods of from two to three days, the remaining children of the family, except a nursing babe, were attacked. The mother borrowed a shawl to wear to the funeral of the child which last died, and after the funeral returned it to a sister living about two miles distant. There was no communication between the families during the sickness, except this transaction. *No visiting between the families.* In three days after the shawl was returned, two children belonging to the family from which the shawl was borrowed, and to which it was returned, fell sick of diphtheria and died.

The mother of the first children rode about two miles in an open sleigh in company with a young lady who sat on the same seat with her. About four days after this ride, the young lady fell sick with the same disease, and communicated it to her mother, who acted as her nurse. Again, the same mother of the first-named children, about two weeks after the death of her last child, visited a brother's family, and remained several days in an adjoining town. The brother's wife took diphtheria within four days of her departure, and barely escaped with her life. Previous to these cases there had been not a single one of diphtheria for at least six miles, for the space of time extending over a year. These cases must have been communicated in the way indicated, and bear to my mind, on careful investigation, the relation of cause and effect, and strongly illustrate to me that diphtheria is not only contagious, but that infection may be produced not only by contact with infected persons, but may be communicated by healthy persons who have had care of the sick, and also transported to some distance by means of wearing apparel.

DAVID DANA SPEAR, M.D.

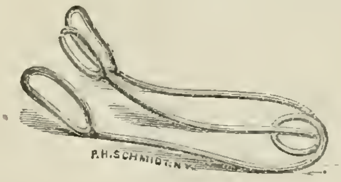
FREEPORT, ME.

New Instrument.

SELF-RETAINING NASAL SPECULUM.

BY DR. D. H. GOODWILLIE,

NEW YORK CITY.



THE above cut represents a three-armed spring nasal speculum, made for me by P. H. Schmidt, Broadway and Thirty-fourth Street, and has these advantages: that it makes a good distention of the nostril in different directions; it is light, and can be retained in the nostril without the necessity of holding it.

It gives very little inconvenience to the patient. My most favorite way of using it is in the horizontal position, as the wing of the nostril is well distended by the middle arm, and is also easily retained.

160 WEST 34TH STREET.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from July 18th to July 24th, 1875.

The following-named Assistant Surgeons (recently appointed) will report as follows for assignment to duty:—

TAYLOR, BLAIR D., in person to the Superintendent U. S. Military Academy, West Point, N. Y., for temporary duty.

WORTHINGTON, J. CH., by letter to the Commanding General, Military Division of the Atlantic.

COMEGYS, E. T., by letter to the Commanding General, Military Division of the Atlantic.

Reed, W., in person to the Commanding Officer, Willet's Point, N. Y. Harbor, for temporary duty at that post.

Kilbourne, H. S., by letter to the Commanding General, Department of the Missouri.

Merrill, J. C., in person to the Superintendent Mounted Recruiting Service, for temporary duty at St. Louis Barracks, Mo.

Hall, W. R., by letter to the Commanding General, Military Division of the Atlantic.

Barnett. R., by letter to the Commanding General, Department of the Gulf.

Torney, Geo. H., in person to the Commanding General, Military Division of the Atlantic, for temporary duty.

Crampton, L. W., by letter to the Commanding General, Department of the Gulf.

Wood, M. W., in person to the Commanding General, Department of the Platte.

Taylor, M. E., by letter to the Commanding General, Department of the Gulf.

Newlands, Wm. L., by letter to the Commanding General, Department of California.

Smith, R. E., by letter to the Commanding General, Department of the Missouri.

Shannon, Wm. C., by letter to the Commanding General, Military Division of the Atlantic.

Tesson, L. S., by letter to the Commanding General. Department of the Missouri.

Spencer. Wm. G., by letter to the Commanding General, Department of the South.

Rosson, R. L., by letter to the Commanding General, Military Division of the Atlantic. S. O. 147, c. s., A. G. O.

Ainsworth, F. C., Assistant Surgeon.—To report to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 147, A. G. O., July 20, 1875.

Brown, P. R., Assistant Surgeon.—To report in person to the Commanding General, Department of Dakota, for assignment to duty. S. O., 147, c. s., A. G. O.

Porter, Jas. Y., Assistant Surgeon.—Assigned to duty with troops temporarily encamped at Indian Key, Florida. S. O. 127, Department of the Gulf, July 13, 1875.

NAVY.

July 20th.

Whiting, Robert, Assistant Surgeon.—Ordered to the Receiving Ship *Potomac.*

Siegfried, Charles A., Assistant Surgeon.—Detached from the *Richmond*, South Pacific Station, and ordered to return home and report his arrival.

Persons, R. C., Assistant Surgeon.—Detached from the Storeship *Onward*, South Pacific Station, and ordered to return home and report his arrival.

Heffinger, A. C., Assistant Surgeon.—Detached from the Receiving Ship *Sabine*, and ordered to the Storeship *Onward*, at Callao.

Ames, Howard E., Assistant Surgeon.—Detached from the Receiving Ship *Potomac*, and ordered to the *Richmond.*

July 25th.

Ambler, James M., Assistant Surgeon.—Detached from the *Kansas*, and ordered home to await orders.

Medical Items and News.

Removal of the Larynx.—The case, reported a short time since, in which Prof. Billroth, of Vienna, removed the larynx, is still familiar to our readers. Prof. Bottini, of Novara, has performed a similar operation, which is reported in *Gaz. Med. di Torino*, No. 10, 1875. The patient is a healthy young man, who, on account of dyspnœa, had already had laryngotomy and cauterization of the larynx performed. The operation for removal lasted an hour and a half, and left the patient much exhausted. He was, however, much revived by injections of beef-tea and wine. Examination of the larynx showed that it was quite obstructed by a grayish-red tumor. In spite of an attack of erysipelas and a series of abscesses, the man gradually improved, gained the power of deglutition, and was able to cough, breathe, and sleep well. The wound has healed up, and the case, save future accidents, may be looked upon as successful.

Dr. Fleetwood Churchill has, in consequence of failing health, retired from the practice of medicine and obstetrics. He has presented his valuable obstetrical library to the King and Queen's College of Physicians, and has received from the College an address expressive of its thanks for his liberality and for the valuable service he has rendered them as President and Professor in the school. His portrait is to be placed in the College hall.

"The British Medical Defence Association" is the title of a new society which is being organized against the encroachment of irregular practitioners in England.

M. Henri Roger, who has been physician to the Hôpital des Enfants of Paris, since 1851, and by the law which limits the service of physicians to fifteen years has arrived at the end of his term of office, has been presented by his students and former *internes* with a medal commemorative of their regard and the success of his teaching.

Dr. Sager, one of the oldest members of the faculty of the Ann Arbor School, has resigned the Professorship of Obstetrics and Diseases of Women.

The Canadian Medical Association is to hold its annual meeting at Halifax, Nova Scotia, on Wednesday, the 4th of August. A large delegation from the American Medical Association is expected. Dr. David, of Montreal, is the General Secretary of the Association.

Dr. Charles Gowan, formerly Assistant-Superintendent of the Worcester Asylum, in England, has been appointed Medical Superintendent of the Toronto Lunatic Asylum.

Change in the Organization of the Medical Department of the French Army.—It is reported that the French military hospitals, both field and garrison, are to be removed from the control of the line and placed under the direct management of the medical staff, subject only to the orders of the commanding general.

Rush Medical College, of Chicago, is reported to have effected a permanent union with the Chicago University, and will hereafter be known as the medical department of that institution.

Harvard Medical School.—Thirty graduates of this school received diplomas at the commencement of the University, on the 30th of June.

Indianapolis has started a County Medical Society.

Original Communications.

DIPHTHERIA OF THE CONJUNCTIVA.

By ROBERT SATTLER, M.D.,

RESIDENT ASSIST. SURGEON, OPHTHALMIC AND SURGICAL INSTITUTE, N. Y.

Within the last few months a number of patients have presented themselves at the clinics of the Ophthalmic and Aural Institute, suffering from conjunctivitis diphtheritica, the disease assuming somewhat of an epidemic character. The comparatively infrequent occurrence of this disease in America has been a sufficient inducement for the publication of some of the cases, and for a review of the clinical history and literature of conjunctivitis diphtheritica.

Diphtheritic conjunctivitis is of frequent occurrence in Germany, especially in the northern part. In some of the cities, particularly Berlin, the disease has repeatedly assumed the character of an epidemic. In Berlin, epidemics were described by v. Graefe and Hirschberg in 1852–54, and also in 1866–70; commonly in the spring and autumn months. A small epidemic is reported by Horner, of Zurich, in 1869. Duing a period of five years, Jacobson, of Konigsberg, observed, among 10,000 eye patients, 40 cases of sporadic and 22 cases of epidemic diphtheritic conjunctivitis. In Switzerland, Belgium, England, France, Russia, and America, only isolated cases have occurred, and the disease has never assumed the character of an epidemic.

Wells, in his book on the "Diseases of the Eye," speaks of the extreme rarity of the disease in England. Wecker, of Paris, says that the grave form of diphtheritic conjunctivitis is seldom met with in France. In Vienna the disease is said never to assume its typical character.

Diphtheritic conjunctivitis usually develops acutely in most of the cases. It occurs as 1, an idiopathic affection of the conjunctiva, or as 2, a complication of other affections of the conjunctival membrane (catarrhal and trachomatous conjunctivitis), or 3, it complicates diphtheritic affections of the pharynx or larynx, which, however, happens very rarely.

In the cases enumerated below, the disease occurred as a complication in 4 cases; in 2 cases the disease manifested itself without any antecedent ocular trouble or constitutional affection. In one of the last cases, the history was obtained from the brother, who stated that the patient, for several days before the disease manifested itself, was permitted to play with a child affected with diphtheritic sore throat, and that this child had frequent attacks of violent coughing.

The disease seems to attack children more frequently than adults, and occurs as frequently as an affection of one eye as of both. Those of a scrofulous or tainted constitution, and especially those suffering or having suffered from antecedent ocular trouble, dependent upon a constitutional taint, are more prone to this disease. The disease may limit itself to certain portions of the conjunctiva, or it may involve the entire conjunctival membrane.

Several varieties or forms of the disease have been described by Von Graefe and Hirschberg. The latter mentions three varieties:

1. The disseminate or partial form.
2. The confluent form.
3. The diffuse form. (Von Graefe has described this as the confluent.)

The disease may be commonly divided into four stages: 1. An initiatory or catarrhal stage, which, however, is not always present, and if present is generally of short duration; 2. The stage of deposition and diphtheritic infiltration; 3. Blennorrhœal; and 4. The stage of cicatrization.

The disease usually commences abruptly with marked and rapidly progressing swelling, and a feeling of heaviness and stiffness of the eyelids. The lids are excessively painful to pressure. The local temperature is generally very decidedly increased. On opening the eyelids a thin, hot, yellowish fluid exudes. These symptoms become rapidly more pronounced, the disease often reaching its maximum intensity in the course of one or two days.

The swelling of the eyelids, as the disease advances, becomes more tense and harder, and excessively hot and painful. The cutaneous surface presents a stretched and shining appearance. The discharge is moderate, as compared with a case of acute blennorrhœa. Every attempt to open the lids is followed by a gush of thin yellowish fluid containing flocculi.

On examination of the conjunctiva, in the commencement, it will generally be found that the diseased process commences in some portion of the conjunctiva tarsi, and there limits itself, or it extends over the fornix to the conjunctiva of the sclerotic, thus infiltrating the conjunctival membrane in its totality, and even overlapping the cornea to a certain extent. The diseased conjunctiva, instead of presenting its natural pale red color, now is pale white or yellowish, the result of an infiltration of a fibrinous product in the subepithelial, tunica propria, and sub-conjunctival layers. The conjunctiva is more or less elevated or thickened; its surface is very finely granular. At different points it presents a drawn-in or puckered appearance. The color of the diseased conjunctiva varies from a pale yellowish to a blanched or glistening white.

As the disease advances, the swelling of the lids becomes more and more tense, red, and painful. The chemosis of the ocular conjunctiva becomes more pronounced, it often encircling the cornea like a hard and unyielding wall. The discharge also increases; it is straw-colored, and contains more flocculi. Constitutional disturbance usually is present at this time, if it has not manifested itself before. There is an increased bodily temperature, the thermometer ranging from 100° to 103½°, accompanied by the usual symptoms of fever, anorexia, malaise, prostration, etc., etc.

After the disease has existed from four to eight or nine days, the transition into the third or blennorrhœal stage takes place. The swelling, redness, and tenderness of the lids diminishes. The external surface of the lid has lost its tense and glossy appearance, and the eyelids are soft and wrinkled. The thin flocculent discharge changes into a creamy pus. On examination of the eyelids, they are more readily everted, and the diseased conjunctival surface is now changed: it is no longer white and shining, but red and somewhat irregular. At the places of the white and somewhat raised infiltration we see ulcers, with an irregular base and ragged outline, the result of the necrosis of the tissue. Conjunctival hemorrhages are now apt to occur.

In the conjunctiva tarsi, deep cicatrices most frequently result. The scars which form in this locality leave more unfavorable consequences (entropion, trichiasis, etc.) than those occurring in the fornix or lower lid.

The third or blennorrhœal stage varies in duration from two to eight or ten weeks, a partial relapse often taking place in this stage.

The fourth, or stage of cicatrization, is also of variable duration, and the boundary line between it and the third stage is not sharply defined. In this stage of the disease cicatrization goes on, and cicatrices of greater or less extent and depth result. Often the cicatrices, especially in children, are superficial and of no considerable depth, escaping observation in many cases. The cicatrices, as before stated, are generally confined to the tarsal conjunctiva of the upper lid, serious deformities of the lid resulting in many cases.

Complications of the cornea may occur at any stage of the disease, assuming the character of central and marginal ulcerations. The most destructive and rapidly progressing corneal complications are met with in the second stage of the disease.

Complication of the cornea manifests itself by objective and subjective symptoms.

A slight circumscribed and uniform haziness of the cornea appears, usually in its central portion, or it may occur at the margin or at any part of the cornea; in some cases the whole cornea becomes uniformly hazy and infiltrated.

When this condition is once present, its course is generally rapid. The ulcerative process advances rapidly and leads to partial or total destruction of the cornea. When the destructive process reaches the membrana Descemet, the ulceration is in some cases temporarily arrested; this layer bulges, and the centre of the ulcer now presents a shining or bead-like appearance, after which perforation almost invariably follows. Corneal complications in this stage (second) almost inevitably result in perforation.

The central ulcers are commonly deep and circumscribed, whereas the peripheral ulcers are more superficial and extensive.

Corneal complications occurring in the third stage are much less destructive and less rapid in their course, the ulceration much resembling the corneal complication in conjunctivitis blennorrhœica. In the last stage (cicatrization) corneal complications are rare, and if they occur, are dependent on the mechanical irritation of the cicatrices.

Mention is made by Saemisch of an implication of the lower lid, the inflammation there assuming a diphtheritic character and resulting in the formation of abscesses. He ascribes this in part to a propagation of the diphtheritic process of the conjunctiva, and in part also to the corroding effect of the secretions, from the constant contact of the mucous membrane of the swollen and pendent upper lid with the outer marginal portion of the lower lid. A peculiar diffuse inflammation of the cellular tissue of both upper and lower lids was observed in one of the cases mentioned below; small superficial abscesses resulting near the marginal portion of the lid.

Conjunctivitis diphtheritica must be considered as highly contagious. It was observed (v. Graefe) that the secretion from a case of blennorrhœa developed the disease. In one of the present number of cases, the child C. P., the disease evidently originated as a result of the direct conveyance of a detached portion of the diphtheritic product from a child suffering from diphtheritic sore throat, during an attack of coughing.

In a certain number of cases conjunctivitis diphtheritica is developed in persons suffering from constitutional disease, or diphtheria of the larynx or pharynx; whereas, in other cases, it occurs solely as a local or independent affection of the conjunctiva, or as a complication of chronic affections of the conjunctiva, in scrofulous or tainted subjects.

The prognosis in all cases of diphtheritic conjunctivitis is grave; depending on the extent of conjunctiva involved, rapidity of progress, early corneal complications, age and constitution, and the hygienic surroundings of the patient. Where the cornea is affected early in the disease, the prognosis is almost invariably bad.

V. Graefe observed 9 total destructions of the eyeball among 40 cases affected with the disease. Hirschberg, among 94 cases; 34 cases proved fatal, and 54 resulted in recovery.

Treatment.—Before mention is made of the treatment recommended by various authorities, I will briefly mention the treatment pursued in the cases enumerated below, which consisted mainly in local and also general measures, viz., placing the patient under the most favorable hygienic and dietetic influences possible.

Local measures.—When one eye was affected, the other was hermetically closed. In children this was found frequently impracticable, and was therefore abandoned. In adults it was invariably practised, where one eye was still unaffected.

Ice compresses were constantly applied, and the most scrupulous cleanliness observed. The eyes were cleansed every ten minutes with lukewarm water, to which a small quantity of salt had been added; the salt relieved the irritant effect which even the lukewarm water would produce.

After the blennorrhœal stage had set in, the cautious application of argentum nitr. was commenced. Corneal complications were treated with atropia.

The treatment of diphtheritic conjunctivitis, owing to the extreme danger of the disease, has engaged the attention and study of many prominent oculists. The use of strong solutions of argentum nitr. in the second stage is universally condemned, on the same ground that it is injurious in all fibrinous and croupous exudations of other mucous membranes. A strict antiphlogistic treatment in the form of constant ice compresses is thought, and has clinically proven to be the most efficacious method. Ice applications are well borne by almost all patients.

Local abstraction of blood has been strongly recommended by von Graefe. He applied a number of leeches to the nose and temporal region.

Scarification of the healthy portion of the affected conjunctiva has been practised; this latter plan has, however, been abandoned, for the disease would frequently propagate itself to the incisions made.

Arteriotomy, or division of the outer commissure, has been recommended. This is certainly of value in lessening the pressure of the swollen eyelids upon the globe; but here also the danger exists of a diphtheritic infiltration of the lips of the wound. If the disease is only partial and the diseased process confined to the central portion of the conjunctiva tarsi, there is less danger, and here the performance of the operation may be considered warrantable.

Mercury has been strongly recommended (v. Graefe and others). Jacobson substituted, the application of moist warmth, where cold compresses were not tolerated by the patient. Bertin mentions a case where it was thought to hasten the appearance of the blennorrhœal stage, by cauterization; but this is considered an extremely dangerous and unwarrantable proceeding.

Ice applications, frequent and absolute cleanliness, and placing the patient under the most favorable hygienic and dietetic influences, comprise the chief and most beneficial remedial measures.

In illustration of the above, I will briefly mention the following cases:

Case I.—*Diffuse form, both eyes, resulting in a small leucoma adherens of left eye and almost complete leucoma of right eye.*

J. J., æt. 17 (under care of Dr. H. Knapp), was admitted to the Ophthalmological and Aural Institute, March 1st, 1875. He was treated as an outdoor patient for acute conjunctivitis, for about two weeks prior to his admission, and was improving rapidly until yesterday, when his condition suddenly changed for the worse. The left eye became first affected; a feeling of stiffness and heaviness of the lids supervened, followed by swelling, which rapidly progressed, attended by severe pain and tenderness.

Several hours after the left, the right eye also became affected. During the night the symptoms became more pronounced; the lids were stiff and unyielding, and excessively painful. Symptoms on admission: Eyelids enormously swollen, hot, and painful. On opening the lids, a quantity of thin, dirty yellowish fluid escapes. The conjunctival surface is found to be pale and somewhat elevated. Both corneæ are surrounded by a ring of chemotic conjunctiva, but they are yet not involved. Ice compresses were ordered to be applied constantly, and frequent cleansing with lukewarm water.

March 2d.—Patient complains of intense pain; lids more swollen; cutaneous surface stretched and glossy. The infiltration of the conjunctiva is more pronounced; the surface is elevated and puckered, and it has changed from the pale to a dull yellowish white color. There are large, irregular, confluent patches of infiltration, commencing near the margin of the lower lid, and extending in some places as far as the lower portion of the conjunctiva bulbi.

In the right eye the diseased process is more marked. Here the infiltration involves the entire tarsal conjunctiva, and extends over the fornix to the ocular conjunctiva. The chemosis is hard and unyielding. The left cornea is clear, but the right is somewhat hazy at its centre. The ice applications were continued, and a small quantity of salt was added to the warm water, in order to relieve its intensely burning effect.

March 4th.—The pain and swelling of the lids have both diminished; the infiltration of the conjunctiva has advanced in both eyes, until almost the entire tract is involved in the diseased process. The right cornea is more extensively infiltrated than the left, though the latter has a central superficial ulcer.

March 6th.—Eyelids less rigid, softer, and redder; the discharge is profuse and purulent. The left cornea has perforated; the ulcer in the right is more extensive, and the marginal infiltration advances rapidly, the centre of the ulcer being raised, and the periphery depressed, while a little above the centre a shining transparent point is seen—evidently the membrane of Descemet. The pain is excessive; marked constitutional disturbance, with fever and decided prostration, is present.

March 9th.—No pain, but patient feeble and prostrated. The ulcer of the right has perforated, and the cornea is extensively sloughing. The ocular chemosis has diminished; the conjunctival surface is very red and swollen. The grayish-white infiltration has disappeared, leaving irregular erosions or excavations in the tissue, varying in extent and depth.

March 13th.—General condition better; the conjunctiva is very red, and the surface is roughly granulated or ragged. The ulcer of the left cornea is cicatrizing, the anterior chamber is partially restored, and the pupil dilates. In the right eye, the iris having prolapsed, it was to-day snipped off with the scissors. The ice compresses had been used up to this time from the first, and to-day the use of argt. nit. was commenced, in addition to the previous treatment.

March 30th.—The patient had a relapse. The lids became again swollen, red, and painful; the discharge, which was profuse, assumed the character of thick pus; the surface of the conjunctiva appeared quite red, and covered with villous projections, but there was no appearance of infiltration. A slight superficial ulceration commenced upon the seat of the old ulcer, in the left eye, the whole cornea being hazy, while the right cornea was infiltrated and vascular at the margin and near the points of ulceration. Ice continued.

Upon April 5th the patient's condition was improved—the swelling had in a great measure subsided, the discharge had decreased, the left cornea had begun to clear up again, and the pupil could be seen to dilate. The right cornea was still quite vascular and infiltrated, except at its lower and inner portion, which was clear.

Upon April 30th the conjunctival inflammation had almost completely disappeared; upon the left cornea, a little internal to its centre, a leucoma adherens was left, while the rest of the cornea was clear; the anterior chamber was established, and the vision had begun to improve rapidly.

The right cornea was still more involved—a leucoma covering all except its lower and internal portion. In this condition the patient was discharged.

CASE II.—*Diffuse form, affecting both eyes; sloughing of cornea (left); escape of lens; phthisis bulbi; right eye recovery.*

H. H., æt. 2½ years—care of Dr. Pooley; has been a patient at the clinic for two weeks, suffering from severe blennorrhœal conjunctivitis of the left eye. To-day (April 10th) the symptoms are decidedly aggravated. The lids are markedly swollen and stiff; the cutaneous surface stretched and shining; the upper lid overhanging the lower in a massive fold. The local temperature is elevated; the discharge, instead of being blennorrhœal in character, is thin and straw-colored, containing flocculi. The palpebral conjunctiva is extensively infiltrated; the surface puckered, and of a grayish-white color; and the cornea is surrounded by a firm ring of chemosis, so that it is not distinctly visible. An ulcer of considerable depth, with a clear and elevated base, exists in the lower and outer quadrant of the cornea.

Although there is little or no constitutional disturbance, the general health of the patient cannot be called good. The treatment consisted in ice applications, together with the constant cleansing of the eye with warm water, to which was added a little salt.

Upon April 11th the swelling of the lids is somewhat diminished, but the cornea has perforated, and is infiltrated throughout. The infiltration of the conjunctiva and subconjunctival tissue is more marked. This morning injection and redness of the healthy eye began, although the greatest caution was observed. In the course of six hours the disease became fairly developed. The lids are stiff, swollen, and excessively painful. In the tarsal conjunctiva of the upper lid infiltration is already observed, and the surface is pale and irregular. The same treatment was immediately begun for this eye.

April 14th.—Swelling and rigidity of the lids very pronounced. The infiltration involves nearly the entire palpebral conjunctiva of both eyes, the surface presenting the characteristic grayish color and puckered appearance. The ocular chemosis is marked in both eyes.

April 17th.—Blennorrhœal stage fairly begun. The lids have lost their swollen, stiff, and stretched appearance, and the discharge is of a thick, creamy pus. The lids are more readily everted; the conjunctiva is red and swollen, being deeply excavated at some points, and at others covered with large trachomatous projections. The left cornea remained clear while the right rapidly sloughed, and the lens became evacuated.

April 20th.—In addition to the ice applications the use of a weak solution of argent. nit. was commenced. The swelling and rigidity of the lids is daily decreasing. The chemosis is less.

May 2d.—Doing well; general physical condition yet feeble, and some swelling of the lids still exists, but the conjunctiva is becoming smooth, having lost its ragged appearance.

May 9th.—The treatment has been continued, and the symptoms are now rapidly subsiding, leaving the right cornea clear, but the left eye has resulted in a complete phthisis bulbi.

CASE III.—*Confluent form, affecting the left eye; ulceration and perforation cornea; central staphyloma.*

S. P., æt. 2 years (care Dr. H. Knapp).

The patient, a poorly-nourished and unhealthy child, was first seen on Feb. 12th, 1875.

It was stated that the eye became affected two days previous, and yesterday the lids became very decidedly swollen, rigid, and painful. In the same house in which the case resided there was a child sick with diphtheritic sore throat, with whom this one was in the habit of playing.

Stat. præsens—left eye. Eyelids present a shining red and stretched appearance, and are rigid and painful. A thin, hot, yellowish discharge bursts forth upon opening the lids. The conjunctival surface is dull and yellowish white. Infiltration extends over the entire tarsus and fornix, as far as to the ocular conjunctiva, which is hard and chemotic. The cornea is slightly infiltrated at its margin. The treatment in this case also consisted in ice applications, together with frequent cleansing, as in the others. In the course of the next few days the swelling and stiffness of the lids, and the ocular chemosis became more pronounced, as well as the appearance of the constitutional disturbance. The directions with regard to treatment were evidently not observed by the parents, for in about ten days afterwards the patient was again brought to the clinic, with the disease advanced to the blennorrhœal stage, and the cornea perforated and infiltrated throughout, while the conjunctiva was very vascular, presenting numerous large and some smaller villous projections. The discharge at this time was profuse and purulent.

In the course of the next few weeks the disease advanced toward recovery, but the cornea had so far sloughed as to result finally in a central staphyloma.

April 10th.—Swelling of lids all gone; cornea opaque and staphylomatous; conjunctiva tarsi covered with deep cicatrices; general health improving.

CASE IV.—*Disseminate form; recovery.*

K. W——, æt. 6 years (care of Dr. Knapp), was brought to the clinic Feb. 11th, 1875. The father stated that the child's eye had suddenly become inflamed yesterday. Since then the symptoms have become rapidly pronounced.

Stat. præs.—r. e. Marked swelling and stiffness of the eyelids, with severe pain upon opening; profuse, thin, yellowish discharge. The conjunctival surface of the lower lid is of a dull, yellowish color, especially marked near the margin. The conjunctiva of the upper lid is pale; no infiltration, however, exists. The ocular conjunctiva is faintly swollen; cornea clear.

Constant ice applications were ordered, and frequent cleansing of the eye with water.

Feb. 18th.—The ice applications were faithfully made. The disease has now advanced into the blennorrhœal stage; the swelling and stiffness of the lids have diminished; the discharge is thick and purulent. On the third day the cornea became hazy in its lower and outer portion; it did not, however, take on ulcerative inflammation. The diphtheritic infiltration also extended to the conjunctiva tarsi, but only in circumscribed patches.

Feb. 20th.—Eyelids soft and wrinkled, copious purulent discharge: the conjunctival surface presents a vascular and succulent appearance; the cornea is clear; the ocular chemosis is disappearing. The cold applications were continued, together with the daily use of a weak solution of argt. nit.

April 8th.—Lids normal, conjunctival surface still red, several small cicatrices in the upper tarsal region.

CASE V.—*Confluent form, occurring in a trachomatous eye after an entropion operation; sloughing of cornea; total staphyloma.*

March 5th.—Patient has suffered from trachoma for a number of months. Her general health has not been good. About seven days previous to her admission she was operated upon by Dr. Pooley for entropion of right eye. The inflammatory reaction following the operation was unusually severe, so that on account of the swelling and pain several of the sutures had to be removed. In the course of the next day the pain and swelling of the lids became more pronounced. On entering the institution she presented about the following symptoms, in addition to those mentioned above: The palpebral conjunctiva of the lower lid is raised, and is of a grayish-white color; the ocular conjunctiva also faintly swollen; the cornea is opaque and infiltrated, but on the cutaneous surface the wound made by the operation remained perfectly healthy. As in the above cases the treatment consisted in the application of ice and cleanliness by means of lukewarm water. The left eye, which as yet was not affected, was hermetically closed.

March 7th.—Eyelids stiff, rigid, and excessively painful; discharge thin and flocculent; chemosis very marked; cornea sloughed and perforated, and the infiltration of the conjunctiva almost complete.

From March 8th to 11th the pain and rigidity of the lids gradually diminished; the external wound cicatrized slowly, having at no time taken on diphtheritic inflammation; the discharge was profuse and purulent, but the conjunctival surface was red and swollen, and marked by large irregular erosions, which bled quite freely upon being touched.

It should here be remarked that at the beginning of the blennorrhœal stage, hemorrhage from the conjunctiva was quite frequent, and in some of the cases very profuse.

April 1st.—The cold compresses have been kept up, and for the past few days varied with the application of argent. nit. in weak solution. Although the conjunctiva is still granular, it does not show such deep erosions, but is beginning to approach a normal condition.

May 1st.—Swelling of lids has disappeared; the conjunctiva still red and somewhat swollen; cornea staphylomatous; patient discharged.

CASE VI.—B. M., æt. three years (care of Dr. Pooley); a strumous unhealthy child; has been treated at the clinic for three weeks for phlyctenular conjunctivitis.

Has had frequent attacks of sore throat and eruptions about the face and head during the past year. On April 14th it was brought to the clinic, after an absence of four days, with a decided change in the symptoms. Eyelids rigid, hot, painful; conjunctiva of upper lid raised and discolored; that of the lower lid marked by several small circumscribed patches, between which the membrane is red and swollen. The chemosis is great, and the cornea is hazy and infiltrated, and the usual thin discharge is present. The same treatment was adopted in this case and the other eye carefully guarded against inoculation.

Upon April 19th the blennorrhœal stage set in, the stretched and rigid condition of the lids began to abate, and the ocular chemosis began to subside, but the cornea had perforated, leaving opacity and infiltration through its entire structure. Palpebral conjunctiva rough and granular, and very red.

May 1st.—Inflammatory symptoms have in a great measure subsided. The conjunctiva, though red, is not rough and granular as before; the cornea is opaque.

THE HYPODERMIC USE OF APOMORPHIA AS AN EMETIC IN CHILDREN.

By Wm. F. DUNCAN, M.D.,

NURSERY HOSPITAL, RANDALL'S ISLAND, N. Y.

A GREAT deal has been written about the hydrochlorate of apomorphia, since its discovery in 1868, in foreign journals of medicine; but until very recently it has attracted little notice in this country, where its use at the present time is restricted to only a few members of the profession. I obtained a specimen of this drug several months ago, and have ever since been using it whenever occasion has demanded an emetic, and now believe that, in this capacity, its value cannot be too highly estimated. It acts more rapidly and certainly, and efficiently as the best of the older emetics, considering them to be turpeth mineral, tartar emetic, and ipecac.

The qualities which recommend it particularly are:

1. The rapidity of its action; 2, the absence of danger from an over-dose; 3, the lightness of its secondary effects; 4, the shortness of the period of nausea; 5, the easy manner of its introduction.

The average time at which emesis has occurred, after its introduction under the skin, is 2.9 minutes, which is very much less than the shortest time noticed when using the yellow sulphate of mercury.

The longest time for emesis to appear was 4.15 minutes in a case of alcoholism, while the shortest was 1.75 minutes in a case of capillary bronchitis.

That this feature is one to be appreciated there is no gainsaying by any who has ever witnessed the relief produced by vomiting, in children with croup or capillary bronchitis. While in cases of poisoning, from the introduction of any of the corrosive poisons into the stomach, this gain of several minutes would be incalculably valuable.

In speaking of the absence of danger from an overdose of apomorphia, reference is made to the use of the English preparation of the drug which is entirely pure, and not to the German, which, according to reputation, contains an impurity of morphia.

But having given gr. $\frac{1}{15}$ to a child of six years, without detecting any symptoms of the effect of opium, I feel free to express the belief that danger from this source is not to be apprehended.

Again, since any pronounced action is limited to the production of vomiting, as no symptoms of gastroduodenitis, nor disturbance of the cerebral functions, nor any of those of the depression frequently witnessed after the exhibition of other powerful emetics, are noticed, one feels safe in its administration. The entire visible effect of the drug disappears after the lapse of an hour or an hour and a half, and the child's system does not seem to have been disturbed by it.

That there are other effects than emesis is recognized, such as a tendency to sleep, a slight weakness of the legs, yawning, etc., but they are very slight and soon disappear after vomiting ceases.

In the introduction of apomorphia the shortening of the period of nausea and retching is a great boon to children, who are spared several minutes of agony; for in three cases out of five, no change in the child's face, indicating nausea, can be seen until with one great effort the entire contents of the stomach are ejected.

The hypodermic method of using this drug makes it applicable to many cases in which an emetic could not otherwise be exhibited, for children at times absolutely refuse to swallow any medicine, and can be compelled to take it only after a long, exhausting struggle, which usually results in the loss of much of their strength.

Again, its superiority in this respect would be very marked in cases of poisoning, where the substance in the stomach might cause a chemical change of the drug introduced into that organ.

The dose of apomorphia, hypodermically used, for an adult, ranges from gr. $\frac{1}{10}$–$\frac{1}{20}$, but in children it is quite large in proportion.

For a child of	18 months	....	gr. $\frac{1}{50}$.
“ “	2 years	....	gr. $\frac{1}{40}$.
“ “	3 “	....	gr. $\frac{1}{35}$.
“ “	3½ “	....	gr. $\frac{1}{35}$.
“ “	5 “	....	gr. $\frac{1}{30}$.
“ “	8 “	....	gr. $\frac{1}{25}$.

Glycerine seems to preserve the strength of the drug, and alcohol will dissolve it more readily than water, so that I recommend it to be prepared after the following formula:

℞.	Apomorphiæ	gr. vii.
	Spts. rectificat	♏xx.
	Glycerin	♏x.
	Aquæ	♏l.
	M.	

In a child of two years, $\frac{1}{35}$ of a grain may be used.

EPITHELIAL CANCER OF ŒSOPHAGUS.

By E. BRADLEY, M.D.,

NEW YORK.

T. L., born in England, of a very long-lived family, in June, 1867, noticed a difficulty in swallowing, which continued with increased severity until death. During the last three months of his illness he could not swallow solids, but was able to swallow fluids until within two minutes of his death. There was no pain, no swelling or external evidence of disease. He gradually grew weaker, and life terminated by inanition. Autopsy, twenty-four hours after death, revealed the fact that three and a half inches of the posterior surface of the tracheal rings, extending from the cricoid cartilage downwards, together with the corresponding portion of the œsophagus, had slowly sloughed away. There was slight thickening behind the arytenoid cartilage; no sign of any sac about trachea or œsophagus; nothing intervened between the anterior rings of the trachea and the muscular coverings of the spinal column. No fluids had accumulated in the diseased neighborhood nor in the thorax.

The disease proved to be epithelial cancer of the œsophagus, ulcerating into the trachea. The most singular and remarkable feature in this case was the fact that he drank and swallowed beef-tea until within a few moments of his death, and that he did not die of strangulation. The fact that epithelial cancer should attack the œsophagus, gives additional importance to the case. Gibbes mentions but two instances, and all authorities agree that prolonged deglutition is remarkable and very unusual in analogous cases.

CYST OF THE THYROID GLAND CURED BY ELECTROLYSIS AFTER INJECTIONS HAD FAILED.

By ANDREW H. SMITH, M.D.,

NEW YORK.

Miss M. S., aged twenty-four, applied for treatment at the Throat Department of the Manhattan Eye and Ear Hospital in January last, the case being one of a tumor of the size of a small orange, situated in the right thyroid region. The growth was first observed some four years before as a small lump, since which time it had gradually but steadily increased in size, until it now constitutes a very decided deformity.

The patient has taken a great deal of iodine, and a variety of applications have been employed locally by the advice of her family physician, but without benefit.

On examination, the tumor is found to be globular, smooth, and elastic, and is evidently a cyst containing fluid. The anterior segment of its wall lies immediately under the skin, to which it is not adherent. The posterior segment, on the other hand, appears to be intimately blended with the underlying tissues. The tumor follows the movements of the trachea in swallowing.

The cyst was evacuated by means of the impromptu aspirator which I have described in a former number of The Record. Two ounces of fluid were drawn off, a little darker in color than brown sherry, and filled with shining particles which the microscope showed to be crystals of cholesterine. The fluid was solidified completely by boiling.

Half a drachm of tincture of iodine was injected into the sac, and this operation was repeated about twice a week, after the plan recommended by Stoerck. But the cyst always filled again in the course of forty-eight hours, and at the end of a month no real progress had been made. I therefore abandoned the injections, and resorted to galvano-puncture. A common glover's needle was thrust into the cyst, and connected with the negative pole of a Drescher's constant-current battery. The other pole was connected with a sponge held in the hand. From twelve to twenty cells were employed, and the sittings occupied from ten to twenty minutes. Three sittings sufficed to render the tumor perfectly hard and somewhat nodular, and after this there was a rapid decrease in size. Twelve sittings, occupying about six weeks, reduced the growth to a small, irregular mass of hardened tissue, which could be felt beneath the skin, but which caused a scarcely perceptible prominence. Treatment was then suspended, and when I last saw the patient, a month later, absorption was still going on, with every prospect of ultimately removing every trace of the tumor. A minute circular cicatrix showed the location of each puncture.

Dr. George B. Owens, J.P., has been nominated Lord Mayor of Dublin for 1876.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

CARCINOMA OF FEMALE BREAST.

There are certain points in the following case which are interesting from the fact that they are not of very frequent occurrence.

A female patient, æt. seventy-five years, with good family history, had always enjoyed excellent health until about two years ago, when she noticed a lump on the left breast, round, hard, and about the size of a walnut. She could not assign any cause for its appearance, had not received a blow or other injury, and her attention was first attracted to it by an itching sensation. This lump soon began to give her great pain, began to increase in size, and the breast was removed by the knife. The wound healed kindly, and the patient had no further trouble until about one year ago, when she noticed a small lump on the other breast, almost identical in shape, size, and situation with the one developed in the first breast. The second tumor increased in size rather rapidly until it reached the present appearance. The entire gland was involved, the axillary portion rather firmly attached to the subjacent muscles, and ulcerative action had just begun, but the discharge was only very slight. There were several little nodules in the integument, at a little distance from the main portion of the disease. Another feature of interest consisted in the fact that, although the right breast was so extensively involved by the disease, yet the axillary glands upon the same side remained unaffected as far as could be determined by external examination, while the axillary glands upon the opposite side were enlarged, extremely tender to the touch, and gave rise to some pain. One of these tumors was globular in shape and about two inches in diameter, and had been observed only two weeks. The condition of the patient was unusually good, in view of her age and the disease from which she was suffering.

This case was interesting in the following respects:

First. As a case of scirrhus occurring in a patient at such an advanced age.

Second. As a case of scirrhus recurring in the *opposite* breast. Recurrence of the disease usually takes place either in the cicatrix or axillary glands upon the same side from which a breast has been removed.

Third. Notwithstanding the extensive amount of disease present in the remaining breast, the axillary glands of that side remained unaffected, while the axillary glands upon the left side were extensively involved.

Fourth. There was nothing in the appearance of the patient which indicated the presence of the so-called cancerous cachexia.

Fifth. The old cicatrix was movable and presented a perfectly healthy appearance.

Sixth. The nipple was not retracted, although the entire gland was involved, and ulceration had commenced.

The question of treatment remained to be considered. In view of the age of the patient, her comparatively comfortable condition, more or less adhesion of the diseased gland to the subjacent tissues, some involvement of the integument, and manifestations of the disease in the axillary glands upon the opposite side, it was considered inappropriate to resort to operative interference, unless the patient desired it, in which case both masses of the disease must necessarily be removed.

TYPHOID FEVER.

A case of the above illustrated the fact that the temperature does not always follow a definite course in this disease. It has been held that the temperature in typhoid pursues a course which is peculiar to that disease and not seen in any other, and this may be true; but that there are many cases of true typhoid fever in which the temperature does not pursue a regular course, is probably equally true. When the temperature table shows a record that agrees with what is called the "characteristic course," it becomes a very strong symptom, but the absence of such a tracing does not necessarily exclude the presence of the fever.

In this patient the morning and evening variation usually seen in typhoid fever was absent. He was a man forty-eight years of age, and when admitted to the hospital his temperature was 102¼° F.

On the 15th (next morning), 102¾°; evening, 102½°.
On the 16th, morning, 101°; evening, 102°.
On the 17th, morning, 100°; evening, 100°.
Patient delirious.

On the 18th, morning, 101½°. The temperature throughout the case presented no peculiarities other than noticed. His attack came on gradually, and in the first week two symptoms were present which are prominent in this affection, namely, epistaxis and diarrhœa. He also had the eruption and tympanites.

AMPUTATIONS—STUMPS TREATED AS OPEN WOUNDS.

In one of the surgical wards a goodly number of stumps were seen. Stumps of three legs and one thigh in the upper third were particularly noticed, which were entirely healed. Of late all stumps in this division have been treated open, and not a single fatal result has occurred during the last six months. It was the opinion of the visiting surgeon that had they not been treated in this manner many of the patients would have certainly died. In some of the cases extensive sloughing took place, and in one necrosis, and it was believed that the open treatment was the only thing which not only modified the diseased action in these, but prevented it in others.

COLLODION.

This article is sometimes used to secure the coapted edges of small wounds. It is very commonly applied with a brush, one coating after another, the surgeon meanwhile blowing upon the surface to assist the process of drying, and it is almost certain to drop off in flakes within a few days when so applied. Bring the edges of the wound nicely in contact, and while they are held, apply all the collodion necessary with a single daub from a loaded brush. In this way quite a firm dry suture is obtained, and one which will remain in place for a considerable length of time.

MAMMARY ABSCESS.

The following is a very simple plan of treatment, and it is claimed that it is much more satisfactory than strapping the breast with adhesive plaster, counter openings, injecting the sinuses with iodine, etc., all of which measures have been extensively resorted to, especially in the country.

What the surgeon desires to do in these cases is to evacuate the abscess thoroughly, at the same time to press the walls of the abscess together, and then retain them in contact. These are substantially the indications to be met, so far as local measures are concerned, for, if the two surfaces can be held thoroughly in contact during forty-eight hours, granulations will spring up which will unite them, and the abscess will be closed.

The plan of treatment recommended meets all these indications and accomplishes the desired results without giving rise to pain, but on the contrary those who had the dressing applied said that it was rather pleasant. It is a plan of dressing within the reach of any practitioner, and can be applied to any breast, no matter how tender. It affords gentle, but firm pressure, and holds the walls of the abscess in contact until union takes place.

Take a piece of coarse sponge, large enough to cover the breast, and about four inches thick; make it a trifle concave or cup-shaped upon one surface, thoroughly cleanse it in boiling water, being very careful to remove all particles of sand, and, while wet, place it between two pieces of board and subject it to at least fifty pounds pressure. At the end of twenty-hours it will be dry and ready for use.

First cover the breast with a moderately thick layer of oakum, which readily absorbs the pus, and at the same time has an antiseptic influence.

Coarse lint may be used, but it is not nearly as pervious to pus as is the oakum, and must be watched more closely, lest free discharge from the abscess is prevented by it. It is important to get the breast up and support it, and this is done by raising it with the hand, before applying the sponge. It is then retained in position by applying the bandage, which is to hold the sponge in place, sufficiently tight, and in the proper direction to accomplish this purpose.

Always leave the upper edge of the sponge uncovered, so that it can be easily wet, for it is almost impossible to wet the sponge through several thicknesses of a tightly-applied muslin roller. The dressing should not be removed for two or three days, and then another sponge should be immediately applied, and thus the dressing kept up for at least eight or ten days, in order to be certain that the surfaces of the abscess are firmly united. The question arises whether this dressing should be applied when there is considerable milk in the breast. There need be no hesitation upon this point, for the milk is readily taken care of by the absorbents, and does no harm. A single sponge may be wet two or three times before its elasticity will be expended, and then it is necessary to make the second application.

ERYSIPELAS.

Injections of carbolic acid hypodermically at the margin of the erysipelatous blush have been used with considerable success in arresting the spread of the inflammation. But such injections cannot, for obvious reasons, be used about the scalp, the ears, etc.

As a substitute, therefore, the following has been suggested, and tried in one case with signal success:

℞ Carbolic acid................	1 part.
Oleic acid..................	8 parts.
M.	

The method of application was insisted upon. It should be constantly applied for six or eight hours, and this can be done by dipping the finger in the preparation and then rubbing the parts over for two or three minutes, and repeating it every ten or fifteen minutes.

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The London Medical Record, with its issue of July 15th, is changed from a weekly to a monthly publication.

ROOSEVELT HOSPITAL.

DR. HEINEMANN, House-Physician.

ACUTE ARTICULAR RHEUMATISM—IMPENDING DEATH—COLD PACK—COLD BATH—RECOVERY.

THERE are a few points in the history of the following case which are worthy of special note: (1) delirium and rise in temperature, accompanied with a subsidence of local symptoms; (2) failure with the pack, but success with the bath in controlling high temperature, etc.

A young man, æt. 18, previously healthy, but rather intemperate, was admitted to the hospital while suffering from his first attack of acute rheumatism, affecting several joints. T. 102° Fah.

He was placed in bed, and received quin. sulph. gr. vi. t.i.d., and hypodermic injections of $\frac{1}{120}$ of a grain of sulphate of atropia, three times a day.

His disease progressed favorably for three days, when he began to be a little delirious. Thinking perhaps the atropia might be the cause of this, it was discontinued, and Rochelle salts were substituted.

The delirium, however, did not decrease, but his temperature began to rise, and soon reached 103°. At night of the same day it was 104°; the next morning, 104°—evening, 104½°; following morning, 104½°—evening, 106⅔°. The delirium at this time was very active, and subsultus was present to such an extent as to render it impossible to count the pulse. The patient was immediately placed in the cold pack, and remained there one hour; at the end of which time his temperature was 107°. He was then removed from the pack, and at once placed in the cold bath—having a temperature of 80° and gradually lowered to 60°—and kept in ten minutes, when his temperature stood at 99½°. At the end of two and a half hours it had risen again to 105°, when he was placed in the bath a second time, and kept there until his symptoms—partial subsidence of delirium. etc.—indicated a return towards the normal standard.

It was found necessary to repeat the bath at intervals of about two hours, keeping him in from five to ten minutes, in order to hold his temperature within reasonable limits, and they were continued in this way for nearly thirty-six hours. Subsequently repetition was necessary only every three or four hours, and at the end of forty-eight hours his temperature fell to 103°, and remained.

When the subsultus had subsided sufficiently, the pulse was found to be 160°.

The patient struggled violently when placed in the bath the first time, but only three or four had been given when he seemed to enjoy them, and before his temperature was permanently brought down he asked for the water. While the high temperature was present and the baths were being given, infusion of digitalis was also administered in drachm doses every two hours, but this was discontinued as soon as the heat was permanently reduced, and three ounces of whiskey every three hours were substituted. When the delirium and the high temperature appeared, there was a general subsidence of all local symptoms, but these have returned to a certain extent since the temperature has remained below 103°.

To-day his pulse is 86 and regular; his appetite is good; he sleeps well, and is getting whiskey, three ounces every four hours, and quinine. When admitted a systolic murmur was present, and it still remains. There could be no question but that the cold bath saved the life of the man.

ANEURISM OF AORTA.

One point of interest in these cases related to an item of treatment. There were two patients suffering from this affection, and one had an aneurism of the left carotid artery in addition. Both suffered considerably from dyspnœa and pain; and for the relief of these symptoms dry cups and leeches had been applied.

It has been considered improbable that the application of two or three leeches over the præcordial region can afford relief in these cases, but such seems to be the clinical fact, for these patients said that they experienced a very great change for the better by the application.

Two leeches over the præcordial region, and dry cups between the scapulæ were applied on alternate days.

ASTHMATIC MIXTURE.

The following asthmatic mixture is much used in this hospital:

Hoffman's anodyne	ʒ i.	
Tr. belladonna	gtt. xv.	
Potass. iodid	gr. v.	M.

S. One t.i.d.

It sometimes happens that the iodide gives rise to nausea; if so, it is dropped from the prescription.

CHRONIC BRIGHT'S DISEASE.

A favorite pill with a visiting physician, to be used in the general treatment of this affection, consists of

℞ Hydrarg. bichlorid	gr. $\frac{1}{20}$.
Quinia sulph.,	
Digitalis pulv., āā	gr. i.
Belladonna ext	gr. ¼.

M.

S. One t.i.d.

CHRONIC BRONCHITIS.

The administration of the following has been attended with a fair amount of relief in this class of cases:

℞ Oleum lini	℥ ij.
Mucilagi acaciæ	℥ ijss.
Syr. tolu	℥ i.
Ol. terebinth	ʒ iij.
Aquæ cinnamomi, ad	℥ viij.

M.

S. ℥ ss. t.i.d.

LINIMENT.

The following is quite a favorite for the relief of those cases with which every practitioner is disturbed, and need not be specified:

℞ Tr. aconit. rad	ʒ ij.
Oleum olivæ	℥ i.
Morphia muriati	gr. vi.
Chloriformi	ʒ i.

M.

CATARRHAL AFFECTIONS.

The following is a favorite prescription for catarrhal pneumonia, bronchitis, etc.:

℞ Ammon. muriat.,	
Potass. chlorat, āā	ʒ ij. and ℈ij.
Aq. aurant. flor	ʒ ij.
Syr. simplic.	℥ ij.
Aqua, ad	℥ iv.

M.

S. Two teaspoonfuls t.i.d.

NEW DIAPHORETIC.

This is the Aabec bark, and is used in the form of fl. ext. or infusion. Of the fluid extract a teaspoonful is given every hour. It is under trial.

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New York, August 7, 1875.

LAW *vs.* PHYSIC.

The happy fraternization between practitioners of law and medicine which sometimes culminates in the establishment of medico-legal societies, is one of the most satisfactory evidences that there is not an absolute antagonism between the two professions. Were this the case, medical jurisprudence, forensic medicine, or whatever else we may choose to name the branch of scientific and practical inquiry which is the connecting link between the two, would be a perpetually hostile arena, in which the athletes of both corps would find an ever-present opportunity for the display of their intellectual prowess and physical force. Rather let us entertain the belief that these men, educated for high and noble motives, honorable rivals in different fields, may, by the judicious employment of their culture and ability, prove to the world at large that through many elements their sympathies flow in perfect accord, and that the instances of clashing and of professional differences which in the courts of justice are sometimes exhibited to the gaze of an open-mouthed public, are only illustrations of individual weaknesses, and not of an underlying current of natural enmity or unfriendly jealousy. When, however, a medical witness, skilled and true, becomes an involuntary target for the shafts of a high legal functionary, who discards his views as trivial, and almost spits upon his conscientious and unbiased evidence, in the effort, unfortunately successful, to procure a verdict against the prisoner, the questions naturally arise, How much of this is blundering ignorance; how much interprofessional antagonism? How far shall this be tolerated without redress? Especially are we stirred to such inquiries when we find, after the lapse of years, the same case revived, under almost similar circumstances, to be settled, at this second investigation, in a directly opposite manner, and in full accordance with the views originally expressed by the medical expert. Great the triumph of the latter; marked the discomfiture of his legal adversary! Such cases, with such opposite results, after so brief an interval, seldom or never occur to enable us to point a moral. It will be remembered that about three years ago a young man, a mere stripling of seventeen, physically weak and mentally deficient, was seized at the gates of Buckingham Palace while in the act of pointing an empty pistol at the Queen. The opportunity thus offered for a conspicuous display of loyalty and allegiance to the crown on the part of the Attorney-General, and even of the Judge, could not, of course, be neglected, and the conviction of this youth became a paramount necessity. It mattered little that positive evidence of insanity or confirmed feeble-mindedness was interposed as an obstacle; the merciless law condemned him to the cell and the lash, from which last the Queen's clemency alone released him. It will be remembered that the evidence of Dr. Harrington Tuke was clear and incontrovertible: the prisoner had long been an invalid, had received an injury to his head which seemed to affect his whole nature; hereditary predisposition to insanity existed; he had suddenly resolved upon a threatening assault on the Queen,—an attempt upon the person or the life of one high in place, which is so frequently the madman's characteristic; he had been under Dr. Tuke's care for mental derangement for several weeks previous to this *denouement*, with spasmodic recurrences rendering him unsafe to others, even amounting, after his conviction and removal to a penal colony, to positive mania; he had visions by night and delusions by day, incoherences of conversation and of written expression, etc. As too often happens in cross-examinations, the unscrupulous prosecuting officer weakened some of the links of the medical evidence, and then threw down before the jury what seemed to them a broken chain. The result was an immediate verdict, without further speech or testimony, and the poor imbecile was made a judicial victim; while the unprejudiced world, for the first time perhaps since the days of barbaric practices in the treatment of insanity, learned that the punishment of undoubted lunacy was imprisonment and whipping,—the jury, however, in the very acme of their loyalty, deciding that he was eventually sound. Now, after the lapse of three years, we find this youth again in England, near the scene of his former notoriety, with the positive stamp of insanity so plainly visible, that his admission to a lunatic asylum was at once resolved upon. Had the views of the enlightened witness been properly regarded at the time, there would have been substituted for this long interval of hard and cruel servitude the soothing care and comfort that were his due. Let us hope that those who were most active in his prosecution and persecution may learn a useful lesson for their future guidance. We would fain believe, with Dr. Tuke, who has recently communicated his views on this subject to a medical contemporary, that the prosecutor, and "even the Judge, must surely now deplore his share in a proceeding which consigned a sick and insane boy to degrading punishment, thus perhaps rendering him a hopeless lunatic; he may also regret that he treated a medical witness with much discourtesy, and ridiculed scientific evidence that has ultimately proved correct;" and we indulge also with him the hope that "the case of Arthur O'Connor may either lead the English" (and also, we trust, the American) "bar into more extended study, or induce them to receive with greater attention and respect the evidence of those who make medical and other scientific investigations the pleasure and business of their lives."

THE GOVERNMENT REPORT ON CHOLERA.

The forthcoming report on cholera, by Ely McClellan, Surgeon U. S. A., promises to be a document of unusual value as a contribution to a very interesting and important subject. It will be recollected that the cholera epidemic in this country during 1873 caused such a widespread alarm that Congress passed a resolution directing the Secretary of War to appoint an Army Surgeon to visit the different infected localities, and to study the disease in all its bearings. Dr. McClellan was selected for this purpose, and has probably furnished one of the most exhaustive general histories of cholera ever published in this country.

The first part of the work is to comprise a clinical history of the epidemic of 1873, with chapters on its etiology and prevention, while the second part contains the general history of the disease, its travels, progress, etc., throughout different parts of the world. To these is an appendix of a list of all the published works on cholera, furnished by the accomplished librarian of the Surgeon-General's office, Dr. John S. Billings, Assistant Surgeon U. S. A. This list, considering the reputation of its compiler for bibliographical research, is as near being complete and exhaustive as the best of facilities could guarantee.

When the work is fairly issued from the press we propose to give a more critical review of its contents in detail, but shall at present only refer to some of the conclusions of Dr. McClellan which may be of interest at the season of the year when cholera is liable to make its appearance. These conclusions are as follows:

> "I. That Asiatic cholera is an infectious disease resulting from an organic poison, which, gaining entrance into the alimentary canal, acts primarily upon and destroys the intestinal epithelium.
>
> "II. That the active agents in the distribution of the cholera poison are the dejections of persons suffering from the disease in any of its stages. That in these dejections there exists an organic matter, which, at a certain stage of decomposition, is capable of reproducing the disease in the human organism to which it has gained access.
>
> "III. That cholera-dejecta coming in contact with and drying upon any objects, such as articles of clothing, bedding, and furniture, will retain indefinitely their power of infection. That in this manner a sure transmissibility of the cholera infection is effected, and that a distinct outbreak of the disease may occur by such means at great distances from the seat of original infection.
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> "IV. That the specific poison which produces the disease known as cholera originates alone in India, and that by virtue of its transmissibility through the persons of infected individuals, or in the meshes of infected fabrics, the disease is carried into all quarters of the world. That cholera has never yet appeared in the Western hemisphere until after its route of pestilential march has been begun in the Eastern world, and that its epidemic appearance upon the North American continent has invariably been preceded by the arrival of vessels infected with cholera-sick, or laden with emigrants and their property from infected districts.
>
> "V. That the respiratory and digestive organs are the avenues through which individual infection is accomplished; that through the atmosphere of infected localities, cholera is frequently communicated to individuals; that water may become contaminated with the specific poison of cholera from the atmosphere, from surface-washings, from neglected sewers, cesspools, or privies, and that the use of water so infected will induce an outbreak of the disease.
>
> "VI. That the virulence of a cholera demonstration, the contagion having been introduced into a community, is influenced by the hygienic condition of the population, and not by any geological formation upon which they may reside.
>
> "VII. That one attack of cholera imparts to the individual no immunity from the disease in the future, but that the contrary seems to be established."

Dr. McClellan is an advocate for quarantine, and is a believer in the infectious character of the cholera discharges. In referring to the quarantine regulations of New York, he pays a high compliment to the efficiency of the present health officer, and declares that under his superintendence they have been carried out almost to perfection.

The character and utility of this report will, we hope, be incentives for similar ones upon other subjects, which can only be properly made under the direct patronage of the Government, and with all the necessary facilities at the command of a properly authorized investigator.

PRELIMINARY EDUCATION.

The proper gradation of medical studies and the requirement of preliminary education are subjects which are forcing themselves upon the attention of our Western brethren, and there is a good promise of something being done in the initiation of these very necessary reforms. The Michigan State Medical Society at its recent annual meeting has passed a resolution bearing upon these points, and has given the University of Michigan an opportunity for answer pro or con. Let other State Societies follow the example, and the different colleges will then have no excuse for longer dodging the question on the ground that it has not been fairly presented to them for discussion.

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The American Pharmaceutical Association meets at Boston on Tuesday, September 7th.

Reviews and Notices of Books.

COMPENDIUM OF CHILDREN'S DISEASES: a Handbook for Practitioners and Students. By DR. JOHANN STEINER, Professor of the Diseases of Children in the University of Prague, etc. Translated from the second German edition by LAWSON TAIT, F.R.C.S., etc. New York: D. APPLETON & Co., 1875.

DR. STEINER's work is largely founded on his experience of upwards of fifteen years in the Francis Joseph Hospital for Children, in Prague. While it cannot rank with the extensive treatise of Barthez and Rilliet, and the great unfinished work of Roger, and although it does not differ very materially from a large number of lesser works on diseases of children, yet it is a book which cannot fail to prove of distinctive value in the hands of the practitioner. With the exception of Vogel's treatise (to which we consider it to be decidedly superior), it is the only recent German work on diseases of children which, so far as we are aware, has been translated into English. The following points have attracted our attention.

The author wisely refrains from the traditional division of tubercular meningitis into stages, and is, therefore, enabled to give a picture of the disease which is much truer to nature than are the descriptions given by most authors. Hypertrophy and sclerosis of the brain are treated of together in one article, because clinically they cannot be separated—a happy infringement upon the plan, often too rigidly adhered to, of making the anatomical features of disease the groundwork of its description. In the author's experience all cases of serous apoplexy have either appeared in children who, on minute examination, showed indications of rickets, or they have proceeded from some such starting-point as "a certain kind of latent ventricular dropsy," and he therefore dissents from the opinion of those who consider that it occurs in children who have been previously in perfect health. The diagnosis of chronic hydrocephalus has not, in his experience, been at all facilitated by the practice of cranial auscultation.

The article on epidemic cerebro-spinal meningitis is very short and quite unsatisfactory. The author states that he has had no personal knowledge of the disease, and that he therefore borrows from the observations of Rinecker, Niemeyer, Liebert, Ziemssen, and Hess, but surely from the writings of these gentlemen a much better account of the disease might easily be compiled. In the treatment of convulsions, Dr. Steiner has found little benefit from the use of bromide of potassium, and he considers digital compression of the carotids as ot doubtful propriety. Concerning the connection between chorea and rheumatism, he dissents from Roger's view, that the former is always of rheumatic causation. "The connection," he says, "seems to be in the preference on the part of rheumatism for attacking serous membranes, while in chorea the affected part is the spinal meninges." In the treatment of chorea he has found bromide of potassium less serviceable than several other remedies. Following Henoch, he describes, under the name of "chorea electrica," a motor neurosis, in which violent and fitful contractions affect single muscles or groups of muscles, instantaneous in their duration and rapid in their sequence, resembling those produced by faradization; but he omits to mention that this is not the grave affection described, under the same name, by Dubini and others.

The author considers reflex epilepsy to be uncommon in childhood, and he has never seen a case due to intestinal worms. In the treatment, he thinks atropine inefficient and unsafe, and he has never known bromide of potassium to produce a permanent cure. Croup and diphtheria are considered as distinct diseases, the former being classed among diseases of the larynx, and the latter among zymotic diseases; and yet the author does not seem to differentiate them so strictly as we are accustomed to do in this country, since, in his article on acute laryngeal catarrh (false croup), he mentions the absence of diphtheritic patches in the pharynx as a means of diagnosticating this disease from true croup. Under the head of croup he speaks of cases beginning with "croupo-diphtheritic pharyngitis," and recommends for such cases the local application of remedies by inhalation, spray, or gargling, of which lime-water has been the most useful in his experience.

The congenital malformations of the heart and great vessels, including the non-occurrence of the anatomical transformations which normally take place at or soon after birth, are very ably treated of. In his observations on the feeding of infants, Dr. Steiner gives his approval to those abominable nursing-bottles which are furnished with "an elastic tube, about six inches long, between the bottle and the mouth-piece." He adds, indeed, that "great care must be taken to keep all the parts very clean," which is almost an impossibility. With this exception, his remarks on feeding are very judicious. The low organisms described by Hallier and others, as found in the blood of patients suffering from diphtheria and other zymotic diseases, the author regards as the result rather than the cause of the morbid process. He considers lime-water the best local application to the throat to cut short diphtheritic exudation and necrosis, and to prevent absorption of the poisonous matter. Lactic acid seems to him to be less efficient, while active cauterization is of only doubtful service, and not to be very highly recommended. The whole article on diphtheria is excellent. The same may be said of the article on the various diseases of the mouth, including stomatitis ulcerosa, noma, and parasitic aphtha.

In the treatment of the dyspepsia of children, Dr. Steiner has found pepsine of very little use. In the treatment of cholera infantum, strong black coffee, with a few drops of rum in it, is spoken of as often very useful in the stage of collapse. Astringents are seldom of service, and their use is a doubtful practice. In the section devoted to the treatment of intestinal obstructions, large injections (of air or liquid), which have attracted much attention of late years, are barely mentioned. The connection between prolapsus ani and stone in the bladder is not mentioned at all. The author recognizes the difficulty of treating inguinal hernia in children with a truss, and yet he considers it advisable that the attempt should always be made. In regard to the diagnosis of peritonitis, it seems to us that Dr. Steiner, in common with most writers, lays too much stress on "the characteristic pain." A short section on "movable spleen" consists of a statement of the leading points in a case observed by the author in a child two years old.

The "general diseases of nutrition," rickets, scrofula, etc., are very carefully and satisfactorily considered. In particular, the author's remarks on the connection between scrofula and tubercle are very judicious. This connection he considers as still far from satisfactorily made out, particularly as regards the theory of the causation of tuberculosis by resorption from centres of caseification; closing with the statement that he is "inclined to regard the diathesis of the individual as the predisposing, and the irritative condition of the glands as the proximate or exciting cause of the tubercle." The plan recently proposed of feeding children predisposed to scrofula entirely on animal food, he regards as unsound.

In speaking of the varieties of the scarlatinous rash, Dr. Steiner says: "I believe I have observed one phenomenon of a curious but yet doubtful character, presenting sharply marked insular portions of the skin, of a milk-white color, or at least much whiter than the rest of the integument, and which I regarded as due to a temporary paralysis of the arterioles." He has also seen a case of that form of post-scarlatinal dropsy described by Frerichs as unaccompanied by any disease of the kidneys. He has seen two cases of hemiplegia following scarlet fever. In the section on the diagnosis of measles, it is stated, erroneously we think, that syphilitic roseola is entirely free from fever. The article on rötheln is by no means so full as the American reader would like to see in a German work. The author is not sure that this disease is contagious. It is satisfactory to find in Dr. Steiner another German who is inclined to consider varicella as an independent disease, since it is another sign that our brethren in that country are reconsidering their old opinion that that affection is a modified form of small-pox.

The article on typhoid fever is very well written. The author expresses his fear that the cold-water treatment may not be altogether devoid of danger in the case of children. In common with several recent observers, Dr. Steiner is inclined to attach only a moderate value to the peculiar deformity of the teeth described by Hutchinson as characteristic of syphilitic children, since he has seen it in those who were quite free from syphilis. In regard to the notion that grave affections are liable to be caused by the cure of eczema of the head and face by local applications, he states that about a thousand cases have been so treated under his observation, without the induction of serious mischief in a single instance. He regards alopecia areata as neither parasitic nor inoculable.

Dr. Steiner's style of writing is in general very smooth, but in the additions to the text of his first edition he has not always been sufficiently careful to re-write sections, but has contented himself with inserting passages; consequently those portions of the work which have been amended contain matter which is more or less reiterative, and which does not always read smoothly with the context. The additions are almost entirely confined to the latter portion of the work.

Mr. Tait's translation is more than ordinarily free from Germanicisms, of which, however, we have noticed a few, such as "symptom-complex," "have only one occurrence" (for "occur only once,") "instriking" (for "striking in"), etc. Of mere verbal errors and inelegant expressions, some of which may be chargeable to the printer, the following have attracted our attention: "*inter*cranial (for *intra*cranial) hyperæmia," occurring on p. 6, being a perpetuation of a mistake by the author; "enteritis cholera*formis*;" "confused" (for confounded); "another two" (for two others); "the skull is still enclosed" (for unclosed), p. 48; "contraction" (for contracture), *passim;* "concurrences" (for concomitants); "scattered with" or "scattered by" (for strewn with); "also (for therefore) during sexual developments," p. 89; "blenorrhagia" (for rhinorrhagia), p. 107; "*cracking* a pint of new milk with a glass of champagne"; "exhibition" (for administration) of a drug; "the respirations are exaggerated" (for accelerated), p. 171; "Canton Schweiz" and "Schweiz" (for Switzerland); "chyloplastic" (for cheiloplastic); "developed somewhat considerably," p. 211; "shiny" (for slimy), p. 246; "arms" (for anus), p. 254; "mucous hæmorrhages" (for hæmorrhages from the mucous membranes), p. 331; "soup" (for soap), p. 380; and "parasitical" (for parasiticidal) "remedy," p. 398.

In many instances the translator has judiciously condensed the author's text, but in a few cases he seems to us to have carried this process too far—as, for instance, in the article on gastromalacia; and we have noted omissions here and there, of which the most important are, the paragraph on the treatment of retro-pharyngeal abscess, two paragraphs on the diagnosis and prognosis of amyloid degeneration of the liver, the one on the symptoms of parenchymatous nephritis, and two paragraphs of the section on the symptoms of intermittent fever. Of positive errors in translation, some of which pervert the author's meaning materially, we may mention the following: "recognized with safety" (for certainty [Sicherheit]), p. 29; "the rupture" (for septum) "is generally perforated," p. 45; "a hydromeningocele" (for hydromyelocele) "is formed," p. 70; "the expression of a probable vaso-motor paralysis" (for vaso-motor spasm), p. 76; "tincture of iron" (for tincture of iodine), p. 132; "aqua cerass. myrrhæ" (for aqua ceras. nigræ), p. 139; "no longer capable of exhaustion" (for expansion), p. 170; "the throat" (for thirst) "unquenchable," p. 239; "not very usual" (for unusual) "in young children," p. 247; "catarrhal vulvitis, leucorrhœa and menstruation" (for masturbation), p. 255; "the exit of the kidney" (for urine) "from the calyces," p. 281; "adhesion of the prepuce to the foreskin," p. 289; "due to the urgency" (for agency) "of the lymphatics," p. 327; "cases have occurred where, in opening these abscesses, the large blood-vessels have been injured, and the hemorrhage has been fatal" (for burrowing of pus downwards and fatal bleeding from perforation of the great blood-vessels of the neck by the abscess breaking internally are rare sequelæ of the suppuration [Eitersenkung nach ebwärts und bei Durchbruch des Abscesses nach innen Eröffnung grösserer Blutgefässe am Halse mit lethaler Blutung bilden seltenere Folgen dieser Vereiterung]), p. 340; "the kidneys always suffer more or less in cases of scarlet fever, the usual condition being that of simple catarrh, but it may be excited into parenchymatous nephritis by external influences" (the text reading, "und zwar *unabhängig* von ausseren Einflussen"), p. 341; "compare" (for confound) "it with primary diphtheritis," p. 343; "sucklings should be weaned, if it be possible, to avoid it whilst cholera is raging" (for, should not be weaned, if it be possible to avoid it, etc.), p. 374; and "iodine and iron" (for iodine and mercury), p. 379.

Mr. Tait has added an occasional note of his own, and has introduced some very judicious hints on the after-treatment of cases in which tracheotomy has been done for croup. He very properly protests against overloading the air of the room with steam, while allowing due importance to a moderate moistening of the air. He has added an appendix of rules for the management of infants, which are praiseworthy in the main, although we regret to observe that he sanctions that form of nursing bottle which is furnished with a long pipe. He has also supplied a tolerably full index. He has committed an error, we think, in not supplying specific head-lines—the words "Diseases of Children" stand alone at the top of every page.

Typographical errors are rather numerous, and we cannot praise the type employed. We have not noticed a perfect "oo" in the whole volume.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 23, 1875.

Dr. E. G. Janeway, Vice-President, in the Chair.

MYOMA OF THE UTERUS.

Dr. Finnell presented a specimen of fibro-myoma of the uterus removed from the body of a colored woman, who died of pneumonia.

PERFORATING GASTRIC ULCER WITHOUT SYMPTOMS.

Dr. Loomis exhibited a specimen of perforating gastric ulcer removed from a merchant, who was forty-six years of age, of spare habit, but capable of a great deal of physical exercise without fatigue. He had no hereditary or acquired predisposition to disease. For the past eight or nine years he had been under the observation of Dr. Loomis at different times for bronchial catarrh and follicular faucitis. During the past four years he became the intimate friend of a very intelligent physician who lived in the house with him. Neither to that gentleman nor to Dr. Loomis had the patient ever complained of any gastric symptoms, nor were his family aware that he ever suffered from any such symptoms. On the morning of May 26, he first felt pain in the upper portion of the abdomen, but it was not sufficiently severe to prevent him from following his ordinary business. He described the pain as colicky in character. At six o'clock in the evening he was seized with another attack, which he located to the left of and on a line with the umbilicus. This pain was so intense that it caused him to cry out, and compelled him to assume a sitting posture.

Within an hour after he first felt this pain, Dr. Loomis saw him. He was then sitting in the chair, bending forward, and to the left, with an anxious expression of countenance, and complaining that the pain was paroxysmal in character, and extended through into his back. On pressure over the point of pain he seemed to be relieved. There was no rigidity of the abdominal walls, nor was there any sign of tympanites. From the fact that he had been exposed to lead poisoning, an attack of lead colic was suspected. It required about forty drops of Magendie's solution to quiet him. His pulse was 70, and his temperature was normal. There was no vomiting, nor had he vomited, as he stated at the time, since a boy.

The next morning his pulse was 80, his temperature normal, and he was still suffering from his pain. There was some rigidity of the abdominal muscles, and pressure over the seat of the pain increased its intensity. He had taken during the night twenty drops of Magendie's solution. From the fact that there was rigidity of the abdominal walls, although very little of any constitutional disturbance, peritonitis was suspected.

A sufficient quantity of morphine was ordered during the day to keep him perfectly free from pain. While the doctor was talking with him, he complained of a little nausea and vomited. The matters vomited were of a green character. He seemed to be relieved by the vomiting.

In the evening his pulse was increased in frequency, being 120, his abdomen became tympanitic, and the area of tenderness had extended. The administration of opium was then commenced in sufficient quantities to keep him under its influence. Dr. Drake remained with him through the night, and kept up the narcotic influence. In the morning he seemed fully as well as the night before, although the tympanites had increased. His respirations were brought down to 18 per minute, his pulse remaining the same. There was considerable nausea whenever the opium was given in diminished quantity.

At 12 o'clock that day his pulse became small and thready, his abdomen still more tympanitic; he vomited in spite of the opium; his extremities became cold and covered with a clammy perspiration. During the afternoon he passed into a state of collapse, and at four o'clock in the morning he died, fifty-eight hours from the time of the commencement of the intense pain.

The autopsy was made six hours after death, the abdominal cavity being only examined. The parietal portion of the peritoneum at the upper portion of the abdomen was thickened and pigmented. There were adhesions between the liver and the abdominal walls; and fresh recent adhesions between the stomach and the viscera lying in contact with it. The peritoneum throughout its whole extent, both parietal and visceral, was intensely congested, and was covered over here and there with flakes of fibrinous exudation. There was a small amount of turbid serum in the most dependent portion of the abdominal cavity. The intestines were distended.

On the anterior portion of the stomach, at the lesser curvature, there was a small ulceration the size of a three-cent piece. This ulcer looked as if it were cut out by a punch. The stomach was drawn out of position downward and to the left, and was adherent in that position. On opening the stomach its mucous membrane was thickened, intensely congested, and of a darkened hue. At a point corresponding to the seat of ulceration was discovered a destruction of tissue, which at the time of removal was two inches in length by an inch in diameter. This destruction of tissue was guarded by elevated edges which were composed of round-cell sarcoma. There was no evidence of recent sloughing at any point. The pyloric orifice of the stomach was distended, as was also the duodenum. The liver and kidneys were normal.

There were two or three points of interest connected with this case. 1. Such extensive disease of the stomach, evidently of such long duration, without symptoms. 2. If the peritonitis was started by perforation, as was probable, the perforation must have been very small, and the peritonitis was at first localized; but when the evidences of general peritonitis manifested themselves the course of the disease was very rapid. The question came up as to the cause and character of this structural disease of the stomach. Dr. Loomis was of the opinion that the ulcer was primarily the result of a suppurative inflammation, and that the induration was a secondary process.

HÆMATOMA OF THE PANCREAS—JAUNDICE.

Dr. Satterthwaite presented a specimen of bloody tumor of the pancreas. The patient was thirty-six years of age, and a clerk by occupation. His family history was good, and he had enjoyed perfect health until 1867, when he had an attack of jaundice following, as he stated, an abuse of alcoholics. He was sick with this for about a month. Shortly after he contracted constitutional syphilis. In 1871 he had a second attack of jaundice, which lasted four or five months, and last December a third attack, from which he did not recover. Since the second attack he had been moderate in the use of liquor. On the 20th of May he was received into St. Luke's Hospital, and in the course of a week or ten days he died. Just before admission, on the 17th of May, he scratched his lip, when a stubborn hemorrhage occurred, necessitating the application of mechanical pressure for its arrest. He had been a frequent sufferer from hemorrhage of the bowels, due doubtless to the same diathesis.

The history on admission was as follows: Patient emaciated and deeply jaundiced, but mental condition good, although drowsy; spleen and liver slightly enlarged; urine loaded with bile pigments; no casts nor albumen; no ecchymotic spots anywhere over the body; no appetite; tongue dried and coated; pupils equal. There was no change in his condition in the hospital, except that he grew gradually weaker until he died.

The autopsy was made twenty hours after death by Dr. Abbe, the house-surgeon. The intestines were in great part healthy in appearance, except that here and there were some ecchymotic spots, while in the upper part of the ileum the gut seemed to be of a livid purple color for a distance of eleven inches. Between the mucous and peritoneal layers of this portion of intestine there was an extravasation of blood, and the wall of the intestine was fully half an inch thick. The boundary of extravasation was pretty well marked. The opening of the common duct into the duodenum was large enough to admit the end of the little finger. The hepatic and cystic ducts were both dilated and filled with a yellowish white fluid. There were no signs of inflammation in the neighborhood. The pancreas was crowded well back against the spinal column and contained in its substance a bloody tumor. The spleen was congested, as were also the kidneys and portal system. The lungs were healthy and the arteries free from atheroma.

Dr. Janeway remarked that the patient has been under his observation at Bellevue. When he first saw him his diagnosis was obstructive jaundice. There was no bile in the fæces, the liver was slightly enlarged, and the hemorrhages which occurred afterwards were supposed to be due to the effect of blood-poisoning. As his disease seemed to be obstinate, it was thought that emetics might be of service, and for this purpose the tenth of a grain of apomorphia was administered hypodermically. The effect was to produce a little bile in the stools for a couple of days afterwards. He believed that the cause of the jaundice as shown after death was primarily due to the disease of the pancreas, which by its dilatation hindered the escape of bile through the common duct, and lastly, the effusion of blood took place in the substance of the organ, and death was the immediate consequence.

Dr. Satterthwaite concurred in Dr. Janeway's views that the extravasations of blood into the pancreas and other tissues, as well as the frequent hemorrhages, were the manifestations of a hemorrhagic diathesis. The history of the case did not show that this condition was due to syphilis or alcoholism, and he was inclined to think that it was due to the presence of biliary salts in the blood.

EXTENSIVE PREPUTIAL EXCRESCENCES.

Dr. Post presented a specimen of warty excrescences which he had removed by actual cautery from the penis. The mass was as large as a hen's egg, involving nearly the whole of the glans penis, and so nearly occluding the preputial orifice as scarcely to admit a No. 18 of the French scale.

FUNGOUS DISEASE OF LOWER JAW.

Dr. Post also exhibited a specimen of a portion of the lower jaw, which he had also removed by operation from a patient aged fifty-five years. The disease presented itself in the shape of a fungous mass, which projected from the cancellated structure of the bone, taking the place of the alveolar ridge for about an inch.

The operation involved the removal of the central portion of the bone, extending on one side as far back as the anterior molar tooth, and on the other beyond that point. After dividing the bone on each side with the chain-saw, and before separating the genio-hyoglossi muscles, a ligature was passed through the tongue and secured behind the ears. This was subsequently substituted for a second, which was passed through the tongue farther back and passed over a roll of bandage under the chin. The case did very well, and a considerable amount of new bone was thrown out, giving a prominence to the portion of the face from which the diseased mass had been removed. Dr. Satterthwaite, who examined the tumor, found that it was a fungous growth in which there was an extensive development of epithelium, but it did not show satisfactory evidences of epithelioma; the clinical evidences were also wanting.

A CASE OF SIMPLE MITRAL OBSTRUCTION.

Dr. Janeway presented a heart, for the opportunity of doing which he was indebted to Dr. Warner. Dr. W. had kept the patient under observation from the time of birth until death, which occurred at the age of 21 years. From early childhood the patient had dyspnœa on the slightest exertion. From 6 to 10 years of age, the patient suffered from repeated attacks of chorea. Between the ages of 16 and 20 years, had dyspnœa, brought on by exertion or imprudence in eating, especially the latter. For the last few weeks before his death, he had been in bed almost all the time, his dyspnœa being extreme. He was also excessively cyanotic, but only slightly œdematous.

At the autopsy, the right heart was found greatly distended with blood, as was also the left auricle. The latter had its walls thickened and its cavity enlarged. The right auricle was in the same condition. The mitral orifice was so small as scarcely to admit the little finger, the valve itself having grown into a funnel shape. On being tested, it held water perfectly, showing that there had been no regurgitation; in other words, that it was a case of pure mitral obstruction independent of diseased action.

The left ventricle was of normal size, and its wall of normal thickness.

The lesions presented in this case were those evidently of mitral stenosis. The disease was almost certainly congenital, and this is a condition of interest in connection with the family history—the father and grandfather having died of cardiac disease. Of this same marked tendency of a family to heart disease he had seen several instances. The most interesting was that of two sisters, under his care at the same time, with mitral stenosis, neither of whom had had rheumatism, and in whom the symptoms of heart disease were manifest about the age of puberty, or a little later.

There was a point which he had noticed on several occasions, viz.: that young people with heart disease, especially mitral stenosis, were apt to be more severely affected at fifteen or sixteen years, and he supposed the rapid growth of the body, and increase of function had much to do with it, and the opening, sufficient for tolerable comfort before, became too small by the increased demands of the system.

He only saw the autopsy in this case, and gave the history as communicated by Dr. Warner. The doctor said that when he examined him he detected no murmur, but that he would be called on occasions when the boy was suffering from dyspnœa. Whether at other times the murmur characteristic of this condition, to which Prof. Austin Flint, Sr., first drew attention, existed, he was unable to state. That was the peculiar blubbering sound slightly preceding the heart's impulse. He well remembered the time when Dr. Flint was the only one who taught this murmur, and the conditions which produced it rightly, others considering it as indicative of regurgitation. This made one of a series of similar cases. He had examined these people during life, heard this peculiar murmur, and on autopsy subsequently found obstruction at the mitral orifice, but no regurgitation. The first of the series was one in which Dr. Flint called the murmur obstructive, others regurgitant. Dr. J. since then had no doubt about the cause and conditions of this murmur. The autopsy showed brown induration of the lungs, marked nutmeg liver, a slightly enlarged and hard spleen, and hard and extremely congested kidneys.

The heart, which was presented, showed:

1st. A marked enlargement of the right side, and this was sufficiently distended with blood so that before opening the pericardium there appeared to be a distension of the sac with serum. After opening the pericardium the right ventricle and auricle came in view distended with blood, and obscured more of the left ventricle than usual; about eight ounces of blood were removed from the heart cavities.

The right auricle was dilated, and its walls somewhat hypertrophied. The right ventricle was dilated to nearly twice the usual size, and its walls were nearly as thick again as usual. The tricuspid valves were a little thicker than usual, the pulmonary normal. The left auricle was much dilated, and its muscular coat was much thickened, so as to be in some parts as thick as the right ventricle usually is. The endocardium was also thicker than usual, and presented two small calcareous plates.

CANCER OF THE STOMACH AND LIVER.

Dr. Janeway also presented a specimen of the above with the following history: Martin Dixon, aged 40, native of Ireland, laborer; admitted April 24, 1875. No history of cancer in the family. Patient denies venereal, but has been addicted to drink. About five weeks before admission, while feeling quite well, and still at his work, he noticed a swelling in the upper part of his abdomen, which was hard and *painless*. He does *not* recollect that it grew gradually larger; indeed, he says it has not increased in size since he first observed it. He has had *no vomiting nor pain after eating;* but a sense of *fulness* follows the ingestion of food and drink.

On admission: He complains of the enlargement of his abdomen, has a decidedly cachectic appearance, and says he has observed a gradual falling off of his appetite and failure of strength for a week or two past. Still he keeps about the ward, and has a *passable* appetite. He is slightly jaundiced, and has light-colored, somewhat *clayey* stools, which afford no evidence of the presence of *colloid* masses. He persists in saying that he has not only never vomited *blood*, but has not vomited *at all* during this present illness.

Inspection: Shows a distended abdomen, with enlarged and tortuous superficial veins ramifying over it, and a slight icterode hue of skin. A large and hard tumor was discovered, evidently continuous with the liver, extending considerably below the free margin of the ribs, and, on the median line, as far as to the umbilicus; also about four inches to left of median line. Hard, nodular irregularities are distinctly felt over that portion of the organ which extends below the ribs; and, about the middle of right lobe, quite a marked depression in the outline of the anterior border is distinguishable.

The hard, round, lower border of the enlarged left lobe can be distinctly grasped between the thumb and fingers. Patient is put on a tonic treatment—iron, cod-liver oil, small doses of quinine, and as nourishing diet as the hospital will afford.

May 15th. Complains of *pain* over the site of the enlarged liver for the first time. Stools still remain lighter in color than normal; appetite fair, and patient about the ward, declaring that he feels "*first rate.*"

A small quantity of fluid in the abdomen is to-day made out by diametrical and peripheral percussion.

May 22d. Diarrhœa for the first time, and quite profuse. Acetate of lead and opium ordered. Diarrhœa continued quite obstinate for four or five days, but finally ceased under the use of opium and acetate of lead.

May 27th. Abdominal fluid increased; no more diarrhœa. Patient has suffered from *prolapsus recti* at intervals for several years; bowel returned to-day, and patient kept in bed with a T-bandage.

June 2d. He has remained in bed since the prolapsus was reduced, and is now losing appetite and emaciating quite rapidly. Slight jaundice exists still. Slight œdema of lower extremities exists to-day. Diarrhœa for two days past. Patient very feeble and rapidly sinking. A noticeable feature of his case has been marked absence of vomiting of any kind, either bloody or otherwise, and freedom from pain; also the short period of time in the past over which his available history extends.

June 3d. Patient died to-day of exhaustion, having had no vomiting, and complained of no pain.

Autopsy—*June 4th.*—*Exterior:* Slight œdema—most marked in legs. Jaundice and anæmia marked. *Brain:* Not examined. *Lungs:* Œdema in dependent portion. *Heart:* Normal. *Abdomen:* Considerable bile-stained serum in peritoneum. *Kidneys:* Bile-stained, but appear normal. *Spleen:* Normal in size; adherent to greater curvature of stomach; old thickening of capsule on convex surface. *Liver:* Weight. with stomach, 18 pounds. Is markedly enlarged and thickened, and is the seat of very numerous new formations, of sizes varying from a pin-head to an inch or two inches in diameter. Color of these is greenish-white; consistency differs—though, in general, they are hard—some of them a littly mushy. The surface of the larger ones, reaching the liver-surface, presents umbilicated centre. *Stomach:* Three enlarged glands are situated along the greater curvature, toward the cardiac extremity, on lower border. The stomach contained about two pints of partly coagulated, blackish blood. A new formation is situated in the walls of the stomach, corresponding in site to the position of the enlarged glands, its centre corresponding to the greater curvature. It is circular in shape, has a raised border, measures nearly three inches in diameter, and its centre presents irregular ulcerations in some places. A quarter of an inch from surface, one small vessel, with open mouth, is observed. On section of border, tumor is soft, gives abundant whitish juice, and at this point is noticed to raise, but not involve, the mucous membrane. *Small Intestines:* Contain some dark-looking blood. A *diverticulum* is observed near the *ileum*. *Large Intestine:* Slate-colored fæces.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from July 25th to July 31*st,* 1875.

Janeway, J. H., Assistant Surgeon.—Granted leave of absence for four months. S. O. 150, A. G. O., July 23, 1875.

Brooke, Jno., Assistant Surgeon.—Leave of absence extended one month. S. O. 153, A. G. O., July 27, 1875.

Elbrey, F. W., Assistant Surgeon.—Granted leave of absence for 20 days, and upon its expiration assigned to duty at Frankfort, Ky. S. O. 106, Department of the South, July 27, 1875.

Paulding, H. O., Assistant Surgeon.—Telegraphic instructions from these headquarters of 21st inst., directing him to proceed with all possible dispatch to Fort Randall, D. T., for duty at that post.

Maus, L. M., Assistant Surgeon.—Assigned to duty at Nashville, Tenn. S. O. 106, c. s., Department of the South.

Taylor, B. D., Assistant Surgeon.—Assignment to duty at United States Military Academy revoked, and ordered to report in person to the Commanding General, Department of Dakota, for assignment to duty. S. O. 151, A. G. O., July 24, 1875.

Worthington, J. Ch., Assistant Surgeon.—Assigned to duty at Fort McHenry, Md. S. O. 143, Military Division of the Atlantic, July 24, 1875.

Comegys, E. T., Assistant Surgeon.—Assigned to duty at Fort Wadsworth, N. Y. H. S. O. 143, c. s., Military Division of the Atlantic.

Hall, Wm. R., Assistant Surgeon.—Assigned to duty at Fort Gratiot, Mich. S. O. 144, Military Division of the Atlantic, July 26, 1875.

Torney, G. H., Assistant Surgeon.—Assigned to duty at Fort Wood, N. Y. H. S. O. 143, c. s., Military Division of the Atlantic.

Shannon, W. C., Assistant Surgeon.—Assigned to duty at Fort Porter, N. J. S. O. 144, c. s., Military Division of the Atlantic.

Spencer, Wm. G., Assistant Surgeon.—Assigned to duty at Fort Lebanon, Ky. S. O. 106, c. s., Department of the South.

Rosson, R. L., Assistant Surgeon.—Assigned to duty at Fort Monroe, Va. S. O. 144, c. s., Military Division of the Atlantic.

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"A Reseat fore the Sistum."—The following "Reseat" was given by a travelling doctor to an Indiana man, who paid him ten dollars for it and his advice:

Sasaprile theard of.................... 0 ℥
Wahoon theard of..................... 0 ℥
Wild Cherrey quartr of .... 0 ℥
One pint of Alkhol.
2 pound of Shugr.
One pint of wattr.
Conmlit All.
pr dos one swaller 3 times pr dy Before Eating.

Medical Items and News.

Conditions for Becoming Practitioners in Brazil.—During a visit to Rio de Janeiro, Professor Jacoud, of the Faculty of Medicine of Paris, made inquiry concerning the conditions imposed on foreigners who might desire to practise medicine in Brazil, and received from the Emperor the following document, dated Feb. 4, 1875:—

"The Brazilian Faculties of Medicine are authorized to permit foreign physicians to answer in their own language to questions that may be addressed to them in the examinations to which they must undergo before they can exercise their profession in Brazil."

The Michigan State Medical Society, at its annual meeting in June, adopted the following: "*Resolved*, That the Regents of the University are hereby requested by the State Medical Society to make, as soon as practicable, a full three years' graded course of study and lectures obligatory upon all students, and that the requirements for admission into this department be made equal to those for admission to the Scientific Department." A resolution was also adopted asking the faculty of the Detroit School to comply with the spirit of the resolution.

Drs. Jenks, Dunster, Shank, Jerome, and Beach were appointed a committee to confer with similar committees from the States of Ohio and Indiana, and the Province of Ontario, with a view to organizing an association, embracing those States and Michigan, which shall meet semi-annually.

Dr. McRobin, Professor of the Practice of Medicine in Aberdeen University, has resigned his chair, which he has held with honor for forty-three years. Dr. R. Beveridge is spoken of as his successor.

The Chicago Medical Examiner, heretofore published by N. S. Davis, M.D., and F. Davis, M.D., is to be consolidated with the *Chicago Medical Journal*. After August 1st it will be known as the *Chicago Medical Journal and Examiner*, and will be edited by Drs. J. Adams Allen and Walter Hay.

The Medical College of Ohio.—Dr. P. S. Conner has been appointed Professor of Anatomy and Clinical Surgery, *vice* Professor Gobrecht, who has been obliged by continued ill-health to resign.

Dr. Landon R. Longworth has been appointed Adjunct Professor of Anatomy.

The college is building an operating amphitheatre in connection with the Good Samaritan Hospital, of a capacity for seating four hundred and fifty students.

College of Pharmacy of the City of New York.—At a stated meeting held June 17th, the following "Delegates to the Convention of Teaching Colleges of Pharmacy," to meet in Boston, September 7th, were elected: Ewen McIntyre, Charles Rice, Professor P. W. Bedford.

A Judicious Custom.—The *Medical and Surgical Reporter* mentions a very sensible warning attached to the notice of the death of a little child of scarlatina. "In consequence of the nature of the disease the funeral service will be private, and, therefore, hour and place are not given."

A little forethought on the part of physicians might lead to similar action in cases of death from contagious disease, and avoid what is undoubtedly a frequent cause of sickness.

Original Communications.

ON PERIODICAL MELANCHOLIA.*

By WILLIAM B. NEFTEL, M.D.,

NEW YORK.

AMONG the many cases of intense psychical depression which I have been observing of late, one particular group presents certain characteristic phenomena of great theoretical interest and practical importance. This variety of melancholia I designate by the name of "*periodical melancholia*," and give here, as an illustration of it, the following case:

Mr. H., 48 years old. His father was affected with ossification of the coronary arteries, and died during an attack of angina pectoris, at the age of 73. His mother, now 79 years old, is suffering from melancholia, the first attack of which she had in 1837, the second in 1857, and since then remains melancholic, with only occasional intervals of improvement. Of his three brothers, one died suddenly in his 48th year, the other two and a sister are healthy, though all have a slight tendency to depression of mind.

The patient's health was very good until 1845, when during four months he was dangerously ill with dysentery, from which, however, he entirely recovered. Since 1850 he has had a great deal of pruritus ani, with a mucous discharge. In 1850 he entered the banking business, and filled a position of responsibility, demanding his incessant attention, and a great deal of work. Having experienced much anxiety in his affairs, he had in 1851 an attack of melancholia that lasted two months, after recovery from which he had, at different times, slight attacks until 1861, when he had a second, more severe. Since then he is alternately healthy during several, at the utmost, five months, and is then affected with melancholia, the attacks lasting from four to eleven months. They come on gradually, the patient feeling at first somewhat depressed in mind, as often happens with healthy persons in consequence of some unpleasant occurrence or physical indisposition, though in this case the depression is without any cause. It continues to increase during several days, until it becomes complete apathy, a perfect indifference to all surroundings, a want of decision, an entire loss of courage, with a dread of something fearful and inevitable.

The patient is then unable to attend to his business or any other occupation; he cannot even read, for his thoughts remain concentrated on his own distressed condition, and as he says, there are no words to describe the intensity of his suffering, that would at times make him prefer death to such a life. He is open to none but the most gloomy impressions, and every diversion in other moods agreeable—for instance, a comedy or any amusement—would during the attack produce upon him quite a painful effect. Nothing remains for him but to lead a life of seclusion, to avoid society and all kinds of pleasant impressions, which seem then only to aggravate his condition. His appetite is bad, the bowels constipated, the sleep insufficient and disturbed by frightful dreams; he feels quite weak, and loses flesh. At the height of the attack he often experiences a feeling of chilliness and shivering, also a great deal of itching; has boils and eruptions all over the body, which is not the case during the intervals. At last his condition becomes unbearable; he passes an entirely sleepless night, and expects the worst results, when suddenly he finds himself refreshed and healthy, to use his expression, "As if some obstruction had been suddenly removed." He is thus restored to his normal condition, in which he remains during a few months, when a new attack is sure to follow.

He has been treated by most eminent physicians and neuropathologists, but his affection has never been influenced by the different methods of treatment. Dr. Edward H. Clarke, the distinguished physician of Boston, kindly sent him to me, and Nov. 5th, 1873, I saw the patient for the first time, two months after an attack.

He is of middle size, very thin, anæmic, and flushing quite readily. The skin dry, atrophic, unelastic; the subcutaneous veins dilated; the hair of the whiskers broken and split at the ends, causing them to appear as if strewn with sand. The mucous membranes (of the mouth, conjunctiva) are pale, and the muscular system but little developed. There is no deformity of the ears or of the skull, which latter, on the contrary, is well developed. His appetite is good, with occasional dyspeptic symptoms; bowels somewhat costive, prolapsus ani, with slight mucous discharge from the rectum. His sleep was always deficient, not more than four or five hours in the twenty-four, sometimes even less. Pulse 70, respiration 18, costo-abdominal; temperature, 37° C.; weight, 124 pounds.

He is very intelligent, and of excellent business capacities, and not at all hypochondric, but, on the contrary, of a good and gay disposition, always fond of joking, and never thinks of his attacks until they have actually come on. His general health is good, and he has no disposition to catch cold, though he is not strong, especially in the arms, and complains of a cold feeling in the right foot, and itching on the inner surface of the thighs. His mode of living is very regular; he is quite temperate, and entirely abstains from sexual intercourse.

As all the different remedies which had been tried have failed to benefit the patient, I resorted at once to the galvanic treatment, and prescribed at the same time a tonic régime, warm baths, and cold douches, exercise in the open air, etc.

He had altogether thirteen galvanic treatments of the head and cervical sympathetic from November 5th to 18th, and, besides, I treated the prolapsus with induced currents. Under this treatment the patient's health greatly improved: he felt strong, and could walk long distances; his appetite and digestion became good, bowels regular, and the prolapsus very much diminished; he slept seven hours every night, which he had never done in previous intervals. The anæmia disappeared, the pulse became fuller, and the veins less dilated; the skin moist; the hair assumed a natural appearance; he had no more itching, and gained flesh, weighing one hundred and twenty-nine pounds. He felt quite well, and returned to his home.

I advised him to come occasionally to New York and continue the galvanic treatment, in order to prevent, if possible, the recurrence of an attack. But owing to the illness of his partner he had to devote all his time to business affairs; and finding that his health continued to improve, and that he could sleep more than seven hours, he thought he would postpone a prolonged treatment until a more convenient moment, and therefore had but four treatments in December and two in February. His health remained excellent during seven months, from September to April, the longest interval he had had since 1861 (the other intervals being from two to five months), when a new attack manifested itself, and the patient returned to my care. I used the same methods of treatment as before (galvanization of the head, sympathetic, etc.), but produced no beneficial effect. I then tried the so-called central galvanization and general faradization, also galvanization of the cord, and all the known electro-therapeutic methods, without the least benefit. On the contrary, the patient grew constantly worse; he lost flesh, became anæmic, the sleep unrefreshing and insufficient, the appetite bad. His intellect, however, remained undisturbed; he perfectly well understood that there was not the slightest material cause for his depression; but it seemed to him that there existed somewhere an obstruction which, if removed, would at once completely liberate him from his intense suffering. He, moreover, felt that this obstruction was not even touched by the treatment. He complained chiefly of want of decision and energy, and entire loss of interest in everything; loss of courage and fear of something dreadful; distress in the præcordial region; impossibility of having any but gloomy ideas; concentration of his whole mind upon his distressed condition, with no power of directing his thoughts to other subjects.

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* A paper read before the N. Y. Medical Library and Journal Association.

Having exhausted all the known electro-therapeutic methods without avail, I advised the patient to go to the country (to the residence of his brother in Virginia), and try a healthful mode of living; exercise in the open air on foot and on horseback, a nourishing diet, etc. He remained there from April 23d to September 15th without any change in his condition, and at my suggestion returned to New York for further treatment. During his absence I had the opportunity of observing similar cases, and had tried a new method which had proved successful, and which I was anxious to try also in his case. It consists chiefly in the production by the polar method of a condition of anelectrotonus in the cervical sympathetic.

Though his present attack lasted five months, it nevertheless differed in several respects advantageously from all the previous ones. In the first place, the interval between the two last attacks was longer than ever, as it was of seven months' duration. He had not lost so much flesh, and weighed one hundred and twenty-five and one-half pounds, while during the former attacks he would run down to one hundred and seventeen pounds. His appetite and strength were less diminished; the boils, eruptions and itching did not at all return this time, nor did the hair assume the peculiar aspect above described; in fact, all the morbid phenomena within the trophic sphere were less marked than before. He had less dyspepsia and insomnia; the bowels remained regular, while formerly they always were costive; the prolapsus has scarcely troubled him, and perhaps even the depression of mind, profound as it was, did not entirely reach the same degree.

After the first galvanic treatment by the new method he slept well, and felt the next day a great deal better than he had done since the beginning of the attack, though perfectly conscious that it was not yet over. I repeated the same treatment the following days, and his condition continued to improve steadily; he felt more interest in everything, he could read, and even enjoy a theatrical representation, which he could never do during former attacks. After six daily treatments, always followed by a prolonged and refreshing night's sleep, his normal condition was entirely restored. I treated him five days longer, and he left New York in excellent health, and still continues to improve. He has already gained flesh (one hundred and twenty-eight pounds), all his functions are normal, has seven hours of sound sleep, he feels strong, and is in good spirits. He himself ascribes to the galvanic treatment his present delivery from the attack for the following reasons, in which I entirely concur: Never before had he an interval of seven months. All the former attacks, of which there had been so many within twenty-three years, had terminated suddenly after a sleepless night, during their very acme. This time, on the contrary, the attack ended gradually and slowly, in the course of a week, during which he enjoyed sound and prolonged sleep at night. Moreover, the improvement commenced immediately after the first treatment by the new method, without the least change in his mode of living and without the administration of any other remedy.

The chief points of interest in the described case are:

1. The periodicity of the attacks.

Though repeated attacks of melancholia in the same persons are not unusual, yet they are generally very few and very far apart, and if the patient does not entirely recover, he passes into a permanent state of melancholia, or into some other form of insanity. In our case the attacks recurred yearly during a long period of twenty-three years, and without leading to any secondary affections. The periodical melancholia afforded me an invaluable opportunity for the study of a separate attack in its relation to the healthy intervals, thus throwing some light upon the pathogeny of melancholia in general.

2. Loss of flesh invariably accompanied the attacks, and an increase in weight always followed as soon as they were over. There was not a single exception to this rule, which must therefore be in intimate connection with the phenomena of melancholia. The patient's weight at the acme of the attack was 117, during the interval 129 to 132 pounds.

3. The attack always commences with a subacute anæmia. The general anæmia continues during the entire attack, and disappears during the interval. The skin, the mucous membranes are pale, the pulse small and feeble; the veins, on the contrary, dilated and distended with blood. These phenomena are also quite constant and admit of no exception. The anæmia, therefore, together with the loss of flesh (weight), must necessarily constitute an essential element of the melancholic attack, and I consider these facts of the utmost importance as regards the etiology and treatment of melancholia, as will be seen hereafter. As a corollary I may also mention the morbid alteration of nutrition, as manifested by the boils, eruptions and itching of the skin, the splitting of the hair, etc. At the height of the attack all the secretions seem to be diminished, though I had no opportunity of verifying this assumption by a quantitative analysis of urea, etc., secreted during twenty-four hours.*

The conclusions I have arrived at from observing the phenomena of periodical melancholia may be applied also to the other varieties of melancholia, a short sketch of which I give here.

The state of psychical depression, known as melancholia, is one of the elementary forms of mental diseases, and has been described by Pinel, Esquirol, Falret, Baillarger, Moreau, and a great number of other writers. To Guislain † belongs the merit of having elucidated the fact that the great majority of all mental diseases begin with a melancholic stage, while

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* After this paper was already sent for publication, the patient had a new attack, which, however, differs favorably from the previous attacks; he is able to read, he sleeps from five to seven hours, his appetite and digestion are good, and there are no morbid phenomena in the sphere of the trophic nerves.

† Guislain. Leçons orales. II., p. 162.

Griesinger[*] treated this psychical affection (psychosis) in close relation to nervous diseases in general, and Krafft-Ebing[†] pointed out the analogies of melancholia and neuralgia. Indeed, melancholia can be considered as a psychical pain, a neurosis, a psychical neuralgia of the sensory centres in the cortical substance of the brain, analogous to the neuralgias in the sensitive sphere of the cerebro-spinal axis. In neuralgias the irritability of the affected nervous apparatus is so much altered that the slightest external excitations, mechanical, atmospheric, etc., which would not be felt in the healthy condition, cause great pain. Even those slight but continuous excitations which depend upon the processes of circulation and nutrition, and are therefore normal stimuli and quite imperceptible in the healthy condition, become a constant source of intense pain in neuralgia. The same is the case with psychical hyperæsthesia, called melancholia, with the only difference that in neuralgia the affection is in the sensitive sphere, and manifests itself as bodily pain; in melancholia it is in the psychical sphere, and is felt as psychical pain and depression of spirit.

In the first case the pain is produced by external stimuli, mechanical, atmospheric, etc.; in the second, by psychical perceptions, ideas. In both cases a sympathetic affection in the motor sphere is apt to follow. Thus the part affected by neuralgia is instinctively kept immovable; in like manner the melancholic, affected by psychical pain, lacks power of will, energy, and courage. Again, the convulsive movements which sometimes accompany neuralgia have their analogy in the psychomotor impulses for acts of destruction, so often noticed in melancholics. Lastly, both conditions, neuralgia and melancholia, are sometimes combined in the same subject, and both are often caused by a hereditary disposition, the neuropathic constitution.

We have to distinguish two classes of melancholic affections, melancholia without delirium and melancholia associated with insane ideas, delusions; though there are intermediate forms, and the first can pass into the other. Characteristic of melancholia is the impossibility for the psychical organ to produce any but unpleasant sensations; in other words, it responds with painful emotions to every impression, even to such as otherwise would be quite agreeable. As all the impressions from the outer world are felt in a most painful manner, everything appears to the patient changed and gloomy, and becomes an infinite source of psychical pain. "The painful perception of the outer world," says Krafft-Ebing,[‡] "manifests itself clinically in a passive manner; at the beginning the patient seeks retirement, avoids all association, and remains secluded; but afterward he becomes aggressive towards persons and things." His relations to the surrounding world have now entirely changed; he finds no pleasure in anything, nor can he be touched by the misfortunes of others, his own distress being much more intense than all beside. Thus he lives in constant solitude and apprehension. In cases of melancholia without delirium the intellect remains intact; but as every psychical act augments the psychical pain, the patient avoids all occupation, becomes inert, undecisive, and brooding over his own sadness. He feels weak, his sleep is insufficient and unrefreshing; he has headache, palpitation of the heart, bad appetite, and constipation; he loses flesh and becomes anæmic. All the morbid symptoms generally exacerbate in the morning, and with female patients especially during menstruation, while toward evening a slight remission sometimes takes place.

If the melancholic condition is not relieved spontaneously or by the efforts of art, or if it has not passed into some form of insanity, the patient usually becomes convinced that there is no remedy for his grief, and, driven to despair, he attempts, and often commits, suicide.

Like in every other nervous affection, so also in melancholia, there are different degrees and varieties of the disease.

Numbers of persons affected with the milder forms of melancholia are continually met with in life. They mostly have a sad and morose countenance, an irritable and changeable disposition, and are generally considered whimsical, and even malicious, until eventually, with the progress of the disease, after a lapse of years, a suicidal attempt in some of these cases will reveal the true nature of their affection. The great majority of those who commit suicide are melancholics. Even the more developed stages of melancholia are not always recognized, and such patients are sometimes considered as *malades imaginaires* or hypochondriacs. One patient of mine, a married lady, living in wealth and luxury, and sincerely attached to her husband and children, suffers for years with melancholia, associated with great distress in the precordial region. Her disease is considered an imaginary one, as no material lesion of any organ can be discovered, and she is generally advised a change of air and travelling, which invariably aggravate her suffering.

Some of these melancholics, especially women, often resort to religious consolations, and are very apt to embrace a new faith, even at the sacrifice of the happiness of their dearest friends. One of these patients consulted me; she had lately become a Roman Catholic, and says that she is now perfectly happy. But it is easy to see that she is only theoretically happy, and that only the name of her affection has been changed from a simple melancholia to a religious melancholia. She fervently devotes herself to her new religious duties, goes to confession every morning before breakfast, spends hours in meditation, and leads an almost ascetic life. She has become much emaciated, and is threatened with insanity.

A variety of melancholia very frequently met with, especially in men, is hypochondriasis. Here the depression comes from the fear of the patient for his own health, which seems to him greatly imperilled. This state of mind is often induced by some morbid peripheric impressions, caused by a slightly deranged abdominal viscus or any other organ, and these impressions the patient mistakes for dangerous symptoms threatening his life. Hypochondriasis may also be of a central origin, called forth by ideas, by reading medical books or by association with other hypochondriacs. In one of my patients, a gentleman of superior intellect and culture, the hypochondriasis is induced by morbid sensations, originating in the sphere of a branch of the sciatic plexus (left nervus cutaneus femoris posterior) Though looking quite healthy, with all the organs in a perfectly normal condition (except some weakness in the sphere of the sexual organs), he was for years a prey to great fear of paralysis, resulting, as he imagined, from some organic affection of the spinal cord, or of the kidneys, or of the heart, etc.

Melancholia is sometimes accompanied by an intense distress in the precordial region, with palpitation and irregular action of the heart, epigastric pulsation, and other symptoms in the sphere of the vaso-motor nerves—pallor and flushes of the face, cold extremities, contracted pulse, etc. These phenomena must be attributed to the cardiac plexus, and depend very probably on a vaso-motor spasm of the cardiac arteries, as in some cases of angina pectoris. Attacks of precordial distress in a moderate degree happen, in my opinion, in every case of melancholia. In their highest development (melancholia præcordialis) these acute attacks, more than any other variety of melancholia, are apt to drive the patient to despair, to loss of mind, and to acts of destruction against things, persons, or his own life.

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[*] Griesinger. Pathologie und Therapie der psych. Krankh. 2 Aufl., p. 213.

[†] Krafft-Ebing. Die Melancholie. Eine klinische Studie.

[‡] Loc. cit., p. 5.

The melancholic state in its further development may become associated with insane ideas, delusions, though occasionally it is so from the beginning. We mostly find this variety of melancholia in cases with extreme precordial distress, and the slight forms of melancholic insanity are generally overlooked. One of my patients, a married lady, of a high moral character, mother of several children, who suffers from melancholy, with precordial distress, is convinced that her unhappy condition is caused by her husband, by incompatibility of their natures; and she is further convinced that she would have been happy had she been married to any one else, or not married at all. And yet her husband is a highly respectable and honorable gentleman, of a beautiful external appearance, of an excellent character and kind disposition, very wealthy, and always ready to spare no expense to satisfy every whim of his wife. She constantly leaves the comforts of her luxurious home, and undertakes long journeys to different places, her principal object being separation from her husband. Her false theory is shared even by her intimate friends, though in reality it is a purely insane idea—a symptom of precordial melancholia with which she is affected.

As the delusions originate from, and are constructed upon the most unpleasant sensations of the patient himself, they must necessarily be of a painful nature. Thus, the intense precordial distress, which even in a healthy person is associated with fear, dreadful apprehensions, etc., in the melancholic gives rise to delusions of danger, of persecution, and of death, embracing every imaginable variety of human misery and suffering.

A most frequent source of delusions in melancholics, are hallucinations, which, as may be easily understood, occur sometimes in such nervous and exhausted persons. The patients hear voices announcing their cruel fate; they see bad spirits, or murderers threatening them; morbid gustatory sensations suggest the idea of being poisoned by enemies, etc. Such hallucinations are also the principal cause of the perverted and dangerous acts of melancholics. "Not unfrequently," says Krafft-Ebing,* "is suicide or homicide their direct consequence, and a desperate act of self-defence against imaginary persecutors. Sometimes the decision to remain mute and refuse all nourishment is induced by a hallucination—a voice prohibiting food and speech." Melancholia, with delusions, if not cured, ultimately passes into the passive or active form. In the first variety (melancholia passiva, attonita) the indecision and loss of energy in the patient leads to a complete abolition of all voluntary activity.

Those who have recovered from this affection describe the feelings of terror and suffering they have endured while in a state of obscured consciousness somewhat similar to a dream, and while unable to perform the simplest act, having lost all voluntary power. They therefore remain motionless in bed or in a corner, and finally scarcely react to external excitations. It seems as if there were an insurmountable resistance to the psychomotor conduction. In the highest degree of passive melancholia, the patients are in a state of catalepsy; the limbs are flexible as if of wax (flexibilitas cerea), and can remain indefinitely in any given, even uncomfortable position, following only the law of gravitation. There is a high degree of muscular and cutaneous anæsthesia and analgesia, and abolition of reflex irritability; but the vegetative and automatic functions, though considerably weakened, still continue. The eyes express anguish and awe. In the state of passive melancholia the patients do not remain longer than a few months. Sometimes they are suddenly relieved from it as if awakened from a profound sleep; or they pass into some secondary form of insanity, or die during the acme of the disease from paralysis of the nervous centres.

In direct opposition to the passive melancholia is the active variety (melancholia activa, agitans). The patient affected by active melancholia instinctively tries, and sometimes succeeds, to relieve his psychical pain and distress by muscular activity, by constant agitation and locomotion. It seems as if the patient, at the height of his suffering, and by enormous efforts, succeeds at last in overcoming the resistance in the psychomotor sphere, at least for a while. During such a paroxysm of agitation, he runs about in despair, trying to destroy everything, his consciousness being partially or totally obscured.

The active melancholia, if not relieved in a short time, leads to death by exhaustion, or else passes into incurable dementia.

At the autopsy of melancholics we find no material lesions of the brain and its membranes, which exhibit an anæmic condition.

I now pass to the consideration of the practical part of the subject, the causes and treatment of melancholia.

As in all nervous affections, the most important factor in the production of melancholia is a certain disposition, the inherited neuropathic constitution, and in its highest development known as degenerescence, and described by Morel, Moreau and Legrand du Saulle.* It is progressive in succeeding generations, and this fact, perhaps, explains the increasing tendency to and severity of nervous affections at the present time. The degenerescence manifests itself in different ways—by deformity of the skull, of the ears, the teeth, asymmetry of the face, etc., congenital clubfoot and various congenital convulsive and neuralgic affections. Very often there are morbid alterations in the structure or functions of the sexual organs, until in the later generations sterility or impotence put an end to the degenerescent families. Those suffering from degenerescence are often eccentric, and among them the so-called inventors are largely represented. The most trifling causes are generally sufficient to induce the severest nervous diseases, and one of their characteristic features is the periodicity of their nervous affections. In persons of a neuropathic constitution, melancholic affections are easily developed under favorable conditions, called exciting causes, which weaken the nervous system in general, and impair the nutrition of the brain. Thus constant mental anxiety, depressing emotions, especially if long continued and associated with insufficient sleep, irregularity in the function of digestion, with sexual and other excesses. In a number of cases I could trace the origin of melancholia in females to the debilitating influence of diseases incidental to pregnancy and the puerperal state, mostly in those who have suffered from excessive vomiting during pregnancy, and from want of sleep in nursing the child after confinement. To these circumstances I ascribe the fact that melancholia is oftener met with in women than in men.

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* Loc. cit., p. 37.

* Legrand du Saulle. La folie héréditaire. Paris, 1873.

According to my observations, melancholia is more prevalent in this country than in Europe, and this I ascribe to the early application to business by men, together with want of sleep and irregularities in the digestive and sexual functions.

From the study of the attacks in *periodic melancholia*, I have every reason to believe that the direct cause of melancholia is anæmia of the brain, perhaps only of some part of its cortical substance, induced by a vaso-motor spasm. This assumption is corroborated by the fact that the melancholic attack is accompanied by other phenomena in the vaso-motor sphere—the contracted pulse, the pallor and flushing of the face, the cold extremities, and especially the precordial distress, which latter in the form of angina pectoris, Landois and Nothnagel have shown to be sometimes a pure vaso-motor neurosis following a general spasmodic contraction of the arteries. The alteration of nutrition, the loss of flesh, and the other symptoms of melancholia, are the consequences of cerebral and general arterial anæmia, as I have had the opportunity of observing in the case of periodic melancholia. Of course it is not probable that a spasm should last during the whole melancholic attack, but judging by analogy of other spasmodic affections, the spasms may follow each other in more or less rapid succession, while their effect, which is the nutritive alteration of the brain, may continue during the intervals between the spasms. By admitting this theory, which is based on facts, the phenomena of melancholia can be satisfactorily explained, and the treatment becomes more rational and successful.

The treatment must first be directed against the neuropathic constitution in order to prevent the development of melancholia, and then against the disease itself. As regards the first, I arrived at results that differ from the generally adopted opinion. Those who are affected with an inherited neuropathic disposition are, as a rule, advised to avoid intellectual occupations: children are not allowed to study much, and grown persons are desired not to devote their time to science, art, etc. They have only to exercise their muscular system, to travel, to sport, and lead otherwise a quiet, idle, almost stupid life. Admitting the necessity of muscular exercise, I maintain that the intellectual exercise of the brain is still more important, not only for the healthy, but also for the neuropathic individuals. That idiots do not live long is an established fact; but it is perhaps less known that even the physically strongest persons, the athletes, if not intellectually developed, seldom, if ever, reach an advanced age, and that the oldest persons in any country are generally also the most intelligent. From the history of a number of my own patients affected with grave nervous and psychical diseases it is evident, beyond any doubt, that intellectual training or exercise of the brain is of the utmost value for the neuropathic persons. Thus a patient of mine whose father died of softening of the brain, who inherited degenerescence in the highest degree, and who has been affected with the worst kind of epilepsy since his youth, is now living in his seventh decade, having preserved all his intellectual faculties. He is a charming poet, a writer of great merit, a student of mathematics and political economy, and possesses a profound knowledge of the literature of different languages. His epileptic attacks were quite alarming; nevertheless, he followed his studies in the universities, and continues them now, often passing whole nights in abstruse mental occupations. The older he grew the milder and less frequent became the attacks; his memory is still good, and he still remains talented and brilliant.

Another patient of mine with inherited degenerescence had his first severe attack of depression when eight years old. He became in his manhood a confirmed melancholic, and once made a suicidal attempt by cutting his throat with a razor. In spite of the advice of his friends and physicians, in his later years he took up the study of the physiology and pathology of the brain and of psychology, and though now about sixty years of age he is comparatively healthy and suffers no more of melancholia.

It is extremely important for persons disposed to melancholia to avoid associating, and especially living, with melancholics. I have had patients who would probably have escaped this affection had they not come into frequent contact with melancholics. A robust and previously healthy person became melancholic after having lived several years as maid to a lady thus affected, and strange to say both complain of the sam morbid symptoms. A young gentleman, the only son of a melancholic mother, and who has never been separated from her, suffers exactly in the same way, though otherwise not resembling his mother. A young lady, daughter of a patient of mine, living in a boarding-school in another city, is generally of a cheerful disposition, but becomes attacked with melancholia whenever her mother makes a long visit to that city, and it takes some time for the young girl to recover after the departure of the mother.

On the contrary, association with gay and humorous people, and healthy amusements, are very beneficial for persons of a neuropathic constitution. The effect of laughing and of comic impressions has some important physiological and psychological significance, as pointed out by Hecker.*

As regards the treatment of the disease itself it is necessary to bear in mind that the psychical organ in this state is unable to produce any but painful sensations, and therefore all kinds of excitation, all impressions, even pleasant ones, have to be avoided, and the patient must be advised to keep quiet bodily and mentally. A few days' rest in bed is sometimes the most beneficial remedy. Exercise, travelling, admonition, and religious consolations only aggravate the psychical hyperæsthesia. On the contrary, everything that produces relaxation of the vaso-motor spasm, and congestion to the brain, acts beneficially. Thus prolonged tepid baths and above all opiates, though only palliatives, often make life endurable, especially in the variety of melancholia with great precordial distress.

Other remedies which act similarly may also be tried, like inhalations of ether, chloroform, nitrite of amyl, chloral, etc. I have not tried alcohol, which also produces congestion to the brain, on account of its secondary injurious effects upon the system. Being absorbed by the blood, alcohol retards the oxidizing processes and the tissue metamorphosis, which seem already weakened during the melancholic attack.

From my own experience I have every reason to believe that the most efficient remedy to abolish the vaso-motor spasm, to regulate the circulation of blood in the brain, and to improve its nutrition, is the galvanic current, applied according to a certain method, the details of which will be given in a separate paper.

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* Hecker. Die Physiologie und Pathologie des Lachens und des Komischen. Berlin, 1873.

A CASE OF GUNSHOT WOUND OF THE BRAIN.

By S. T. SATTERTHWAITE, M.D.,

BELLAIRE, OHIO.

S., aged seventeen years, male, single, colored, day-laborer, temperate habits. Never had any venereal disease or severe illness. Patient went gunning on the 9th December, 1874, using single-barrelled shotgun, one-half inch bore, and loaded with No. 4 shot. While in the act of climbing between the rails of a fence, the gun was discharged, the load taking effect in the head, one-half inch above the right temple, at the junction of the frontal and parietal bones; the charge carrying before it a large quantity of the brain and its membranes, making a deep furrow or groove, that ran along the course of the coronal suture, three inches in length by one and one-fourth inch in width, finally making its exit at the crown within one-half inch of the superior longitudinal sinus. The opening in the cranium by exact measurement was two and one-half inches in length by one-third of an inch in width. Portions of the cerebrum, in a pulpyfied state, protruded through this opening. The ragged portions of the scalp that surrounded the wound were blackened and charred by the combustion of the powder, showing that the muzzle of the gun must have been in close proximity with the head of the patient.

I found the patient with all the symptoms of concussion of the brain, from which he rallied in six hours from the receipt of the injury. On the morning of the 10th, I found him in the following condition: Entirely recovered from the effect of concussion: no symptoms of compression; perfectly rational, but much inclined to sleep, he having rested well during the night; kidneys acted twice naturally: complete paralysis of left arm and leg, in fact the paralysis extended over the entire left side; patient had good control over the sphincter muscles.

Memory of the accident and of the circumstances connected with it very good; gave a complete history of how it occurred.

Anæsthesia and analgesia both exist. No pain was produced by pinching or even pricking the integument with a pin. It was impossible for him to tell when my hand was in contact with his arm. A mass of cerebral matter the size of a hulled walnut, and consisting principally of gray matter, was removed as it protruded through the opening in a disorganized state. Patient free from pain.

The patient passed on gradually towards recovery without one unfavorable symptom. From time to time small detached pieces of bone were removed. I am quite sure that at least two ozs. (℥ ij.) of the brain were removed altogether during the recent state of the wound. His mental faculties remained intact during the entire time. His intelligence remained equally as good as it was previous to the receipt of the injury.

January 2d. Wound granulating and filling up. A large fungous growth sprang up through the wound, which was removed with the knife, and its re-occurrence prevented by the use of compress bandage. Sufficiently recovered use of left leg to raise it from the bed. Arm still completely paralyzed. Sense of pain slightly recovered. No sense of touch.

March 5th. Wound entirely closed up and healed over. The use of left leg so far recovered that the patient can walk with the assistance of a crutch. Sense of tact in left leg very good. Sense of pain slightly present. Left arm still useless, and sense of tact slightly present in it.

March 23d. Patient doing well. Can walk without crutch. No use of left arm and hand; sense of tact and pain almost normal in leg, but very slightly present in the arm.

April 14th. Patient was taken suddenly with severe sharp pain in the head, near the site of the wound. Tongue coated; bowels constipated; pulse, 108; temperature, 101°. The cicatrice over the wound was raised at least one-fourth of an inch and throbbing violently. He remained in this condition until the 18th of April and then became comatose.

An incision was made with a common-sized bistoury through the scalp, over the site of the old wound. The blade was passed in to its full length before pus was discharged. It then passed off in large quantities, discharging at least a common-sized teacupful. In half an hour from the time the incision was made the patient raised himself in bed and answered questions intelligently. In a few days he was walking about.

On May 19th the patient was again attacked with severe pain over the entire head and a return of inflammatory symptoms. Violent convulsions then set in, which terminated in death, May 21st.

I thought a history of this case would be interesting, and perhaps useful, for the following reasons:

1. The extent of injury received by the brain and its membranes, and yet such complete recovery taking place without any unfavorable symptoms.
2. The complete recovery of the use of the left leg, while the left arm and hand remained powerless.
3. The loss of brain substance out of that portion of the brain considered the seat of intelligence, without any perceptible loss of the mental faculties.
4. The loss of both the sense of pain and tact, as compared with the seat of injury in the brain.

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CURE OF CYSTITIS BY DILATATION OF THE NECK OF THE BLADDER.

EXAMINATION OF BLADDER WITH SPECULUM.

By JOSEPH W. HOWE, M.D.,

CLINICAL PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

The following case affords an illustration of the curative effects of dilatation of the neck of the bladder in chronic cystitis, as well as the feasibility of an ocular examination of the pathological changes progressing in the inflamed viscus.

Ann M. K., æt. 35, occupation domestic (?), was admitted to Charity Hospital, December 9th, 1874. For several years she has been accustomed to use alcoholic liquors. One year previous to admission, a small sore appeared at the entrance of the vagina. It lasted several weeks, and was unaccompanied by a bubo. Subsequently the throat became inflamed, and an eruption appeared on the skin. There was pain in the hypogastric region: frequent desire to micturate, both day and night. Micturition was always accompanied by great pain. She was treated at one of the city dispensaries for inflammation of the bladder and syphilis, but with only a slight abatement in the symptoms.

On admission she complained of pain in the perineum and hypogastric region. The calls to evacuate the bladder were so frequent and painful that sleep could not be obtained. The urine was strongly alkaline, and contained mucus, pus-corpuscles, and a small quantity of triple phosphates. The remains of a syphilitic eruption were still perceptible on the integument.

She remained in the hospital from December 9th to February 25th, without any improvement in the condition of her bladder. On that day (February 25th) I saw her for the first time. and as the ordinary means of treatment had failed, I decided to try the effect of dilating the neck of the bladder, in order to give the organ a rest, and if possible examine the inflamed lining membrane. She was placed under ether, and the urethra gradually dilated with Molesworth's dilator until the canal was large enough to admit my little finger. Then the index-finger was introduced, and, lastly, a small glass speculum measuring nearly three quarters of an inch in diameter. Through this the interior of the bladder was readily seen, and the healthy and diseased portions clearly defined. Around the neck and extending backwards about one inch and a half there was well-marked congestion. The membrane was studded with minute red points, which in some places seemed to be raised considerably above the surface, giving rise to an appearance resembling that of granular lids. There was no appearance of mucus. A piece of red litmus paper, introduced on the end of a sponge-holder, and applied to the membrane, showed a strong alkaline reaction. The bladder was then thoroughly washed with warm water, and the litmus paper again applied to the upper portion of the viscus, but the reaction was still alkaline. The cleansing produced little or no change in the appearance of the inflamed membrane. The patient was then placed in bed, and a hypodermic injection of ten minims of Magendie administered. Next day (Monday) quinine in tonic doses was ordered. She then complained of slight soreness about the urethra, the urine dribbled from the bladder until the fifth day after the operation, when the sphincter muscle again resumed control. On Sunday night, March 3d, she made water but twice. The water was retained in the interval without discomfort. From that time on, micturition was performed in a natural manner, without pain or uneasiness, and when I last saw her, two months from the time of the operation, there was no return of the disease. She had perfect control over the sphincter, and, so far as could be ascertained, a rapid and complete cure of the cystitis had resulted from the dilatation.

The absolute and almost immediate relief afforded in this case is sufficient evidence that the dilatation was the best thing to be done under the circumstances. *Rest* is the great desideratum in chronic inflammation of the bladder. With the organ at rest, the pathological changes effected by inflammation are removed without medication. The daily washing of an inflamed bladder with solutions of nitrate of silver, etc., and the internal administration of buchu, pareira brava, uva ursi, and alkaline medicines rarely effect a complete cure. The disease is merely retarded; the inflammation is apt to continue as long as the contractions of the organ take place with abnormal frequency. Now the dilatation temporarily paralyzes the sphincter of the bladder, gives the organ a rest, allows the urine to dribble away without pain. The patient is freed from the annoyance of jumping out of bed every hour during the night to micturate, and the sleep necessary to recuperate her exhausted system is readily obtained.

The risk of permanent incontinence has been urged against the operation, but this danger is, no doubt, exaggerated. Where there is inflammation in and near the neck, the tissues are probably softer than natural, and the stretching is, therefore, more readily effected, and that, too, with less injury to the sphincter than would arise were it dilated when in a normal condition. Even granting the danger, is it not better to have incontinence of urine without pain and inflammation and loss of sleep, than incontinence of urine with them, as well as a strong prospect of the final involvement of other organs in the inflammatory process?

Perineal section, with division of some of the fibres at the neck of the bladder, has been repeatedly tried for the relief of chronic cystitis in the male, and with some success. Dilatation of the neck alone would probably answer as well; it would give the bladder the necessary rest as rapidly as the cutting operation, and with less risk.

With regard to the illumination of the interior of the bladder, the process is the same as for the examination of the vagina or other cavities. The examination may be made with or without the ordinary reflecting mirror. Following cutting operations for stone in the bladder, a small speculum could readily be introduced through the wound, light thrown in, and the pathological changes excited by the foreign body carefully studied.

36 W. 24TH ST.

Progress of Medical Science.

UNUSUALLY RAPID ACTION OF THE HEART.—Dr. Robert Farquharson relates the following interesting case:—A soldier, 28 years of age, was under treatment for acute rheumatism. He complained that for some time he had been short-winded on exertion, and on going upstairs. Twelve months before, he experienced a slight attack of palpitation, but no recurrence of this symptom was experienced until the day before, when he was suddenly and violently attacked. His heart beat very heavily all night, and in the morning he felt so ill and unfit for duty, that he at once reported himself sick. On admission to hospital it was noted that he looked pale and anxious; his breathing was much hurried; the pulse was 116, full, bounding and thrilling, and a loud double bruit was heard at the base of the heart, and down the sternum, while the heart impulse was forcible and heaving. Various remedies were used, and finally he was given fifteen minims of the tincture of digitalis, with an equal quantity of tincture of iron, thrice a day; on the next day the pulse had fallen to 80. Matters went on well for some time, when one morning Dr. F.'s attention was drawn to the very alarming symptoms which the patient presented, and which seemed to threaten a rapidly fatal result. The patient was sitting up in bed, breathing with great effort; his countenance was pale and covered with a clammy sweat; on placing the finger on his pulse, the doctor was able, though with difficulty, to count 216 pulsations in the minute. On listening to the heart itself, the cardiac systoles followed one another with great rapidity, and no bruit could be made out, but the first sound was clearly and distinctly audible. Whilst feeling his pulse, the heart suddenly stopped for several beats, then gave three or four forcible and irregular pulsations, and, on resuming its action, was found to have fallen to 104. The patient then expressed himself as feeling much relieved; the countenance lost its ghastly pallor, and he was able to tell the doctor that the palpitation first began at 9 A.M., and that he had suffered in a similar way, but much less severely, several times since admission. On the next day he had another, but much slighter, attack.

Dr. F. says that the digitalis was prescribed in his case under the old-fashioned idea of reducing the laboring action of an enlarged and hypertrophied heart, and before modern research had shown that its use in such a case was not only unnecessary, but possibly injurious. The first result of its employment, he says, was to reduce the frequency of the pulse, and the second, he fully believes, was paralysis of the terminal cardiac filaments of the vagi, from that exhaustion which usually follows undue stimulation, and hence the remarkably rapid rate to which the sympathetic urged on the muscular contractions.

This is in agreement with the theory that digitalis at first retards the pulse, whilst larger or longer continued doses inevitably bring about a secondary stage of excitement and great rapidity.—*The British Med. Journal*, June 12, 1875.

The Antiseptic Properties of Salicylic and Benzoic Acids.—Prof. E. Salkowski, of Berlin, has been making some experiments on the relative antiseptic properties of salicylic and benzoic acids, adding these substances to albuminous solutions, and observing their condition subsequently as to turbidity or clearness, reaction, odor of putrefaction, and the occurrence of mould and bacteria. He concludes that salicylic acid in concentrated aqueous solutions can retard putrefaction, but cannot prevent it. He denies that it possesses deodorizing properties, as has been claimed, arguing that a deodorant action is to be explained in one of the following ways: either by the destruction of volatile emanations from the fluid, as permanganate of potash, chloride of lime, or sulphurous acid act; or by absorption, as in the case of charcoal, gypsum and the like, or by disguising the odor of decomposition, as does carbolic acid. He states that salicylic acts in no one of these ways, nor does he consider the assumption of Kolbe tenable, that it acts by breaking up into carbolic and carbonic acids. On the other hand, he declares that benzoic acid possesses much stronger antiseptic properties. He conjectures that the mode of preparation of this acid influences its antiseptic qualities, and recommends only that prepared from wine by the best makers. Another advantage is, that it is very much cheaper than salicylic acid. Our author considers both of these acids alike unfitted for internal use as antiseptics or antizymotics, because they are converted in the blood into soda salts. Neutral substances, or such as pass through the system unchanged, are to be preferred for this purpose. Among these, phenol, its substitution products, such as thymol, and the ethers of phenol, are preëminent.—*Berl. Klin. Woch.*, May 31, 1875.

Operation for Varicocele by the Subcutaneous Wire Loop.—Mr. Richard Barwell, Surgeon to Charing Cross Hospital, advocates the treatment of varicocele by the method which he describes as follows: First, it is most important that the vas deferens and spermatic artery be separated from the veins. This is best done by the surgeon standing on the patient's left (supposing the disease to be on that side), and taking that half of the scrotum, about an inch above the testicle, between the left finger and thumb, and feeling for the duct by rubbing the two surfaces of the bag gently together while its walls glide from his grip. When he has thus brought the duct and artery from among the venous plexus, and holds them between his thumb and finger-tip, he must let them slip away to the back, so that he will enclose the veins within the circle of his finger and thumb, and exclude from it the artery and the vas deferens. The digit tips and slightly compressed scrotum will thus separate the one set of vessels from the other. If, in seeking for the duct, the surgeon have allowed a few veins to slip away with it, he can begin again, with the advantage of having no longer the whole mass, but only a few vessels, to deal with. If he be not sure of having successfully isolated this important part, he must examine the condition of things with his right hand while keeping the left in the same position. Supposing this separation accomplished, the bit of scrotum between the finger-tips is to be squeezed rather tight, and a needle, armed with iron or silver wire, not too fine, thrust straight through above them. Now the part may be released from the grasp, and the needle passed in again at the puncture of exit, in front of the veins, and out at the first place of entrance. Thus at one opening protrude the two ends of the wire, and at the other a loop; by drawing on the ends, the loop is pulled into the scrotal cavity, and closely surrounds the varicocele. Each end is passed through a hole in an instrument, which Mr. Barwell has described in a former paper, and drawn tight enough to make the veins below swell, bulge, and partly consolidate. Every other day, or every day, if time be an object, the wire may be tightened until it has cut through all the consolidated veins, and has come away. No suppuration nor apparent inflammation accompanies the process. The patient need not be confined to his bed after the first forty-eight hours.

Mr. Barwell says that one caution must be given. In passing the needle the second time, *i e.*, in front of the veins, its course must be entirely in the cavity of the scrotum. If, from over-anxiety to include every vein, or, from other cause, some of the lining fascia be strangulated in the loop, the case will be considerably retarded, and some amount of suppuration, accompanied by swelling in the walls of the sac, is likely to ensue. He says that when the operation is well performed, there is but little pain accompanying or following it, and in some cases where pain in the testicle had previously been severe, relief was the immediate result.

Mr. William Rose, in a note to *The Lancet* in regard to Mr. Barwell's article, says that Mr. Wood, of King's College Hospital, for the past nine years has operated for varicocele by a method which Mr. Rose thinks superior to that employed by Mr. Barwell, in that the ends of the wire loop that surround the spermatic veins are passed through an instrument devised by Mr. Wood, so that the loop is steadily tightened by means of the constant action of a spring. In this way Mr. Rose says that the subsequent daily tightening of the wires, according to Mr. Barwell's plan, is avoided, and he further says that the veins are cut through in a much shorter time. He refers to *The Lancet* of July 4, 1868, for an account of the operation, and a woodcut of the instrument.—*The Lancet*, June 12 and 19, 1875.

Hemorrhage in a Case of Hemophilia arrested by Penghawar Djambi.—Cantani having used this drug (see Record, Jan. 30, 1875, p. 80) with great success in treating a small wound in the occiput in a hemophilous patient when nothing else succeeded, expresses the opinion that it is on Vogel's theory of its action peculiarly suited to this class of cases, considering the hemorrhage in this disease due rather to a watery blood than to a fragility of the vessels. Penghawar, the fibres of which, he believes, abstract the watery elements from the blood and being thus swollen form an artificial thrombus, would exactly meet the conditions. It should therefore be applied dry.—*Aertzl. Corr.-Bl.—Rundschau*, May 25, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

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HOSPITAL MANAGEMENT.

At present a great deal of attention is directed towards the subject of hospital management, especially in connection with the recent action of the Board of Managers of the Presbyterian Hospital. A great many views have been expressed by our correspondents in regard to the subject, and the question has been viewed from such a variety of standpoints that it appears to have had a very thorough discussion. The great difficulty has been to define the proper relations which should exist between the managers and the medical staff. It is natural, in the enthusiasm of defending what we may believe to be our professional rights, to overstep the boundaries of discretion, and claim more than is in reality our due. This has undoubtedly been done by some of our correspondents. If we would arrive at a fair estimate of the true merits of the question, we must not coax ourselves to take too radical a position. In the cause of justice we can always afford to be conservative.

The want of a proper agreement between any board of managers and the medical staff has been a chronic difficulty with many excellent hospitals, and has tended more than anything else to interfere with the prosperity of these institutions. When we take a reasonable aspect of the case, it seems strange that such misunderstandings should exist, especially when we consider the different offices which are required of the respective boards.

The managers and the medical staff are both very essential to the welfare and the proper management of any hospital. The duties of each board are such that there should not be any reasonable desire to extend them into the province of the other. The division of the responsibilities of the manager and the attending medical man are very easy and natural. The office of the former functionary makes him responsible for the care of the hospital in all its relations to the community as a public and charitable institution, while the duty of the latter pertains to the general medical care of the inmates. The proper and prosperous administration of hospital affairs involves an acknowledgment of the importance of both interests, and every effort should be made to blend them into an harmonious action. As one board cannot well do without the other, there should be a respect for each other's rights.

It is conceded that one of the most important requisites for the successful management of any charitable institution is money. The necessity of its possession, involving as it does skilful financiering, naturally places its pecuniary affairs in the hands of business men. Whatever benefits we as a profession may confer upon the institution after it is fairly endowed, we must acknowledge that such opportunities are proportionate to the pecuniary means for so doing which are placed at our disposal. It is fair to assume that, inasmuch as the board of managers represents the interests of the contributors, it should be entrusted with all that refers to the strictly business management of the institution. We believe that the profession do not question this right, and are willing to concede everything which may even indirectly belong to it. A trouble has been, however, that business men are apt to treat of their affairs in a very business-like manner, and are sometimes guilty of an abruptness of decision and rudeness of action which, from a professional point of view, we cannot always understand. We do not usually make enough allowance for such actions, and we are too ready to explain them in any other light than that of good intentions. This is certainly the charitable way of looking at the question, if we desire to come to any understanding of the real merits of the case.

As we have before remarked, the profession, particularly that part of it which has been seeking hospital appointment, has been in no small degree responsible for all this trouble. We have been so eager to obtain the votes for preferment, that we have forced our place-givers to believe that we have no rights which they may not confer upon us. Our eagerness for office has crucified our professional dignity, and has even lowered us into the domain of sycophancy. Can we blame the appointing powers for the contempt in which they may hold our professional influence? Is it to be wondered at that we have to encounter many obstacles before we can convince them of the limit of their interference in hospital affairs?

We believe that one reason why our opinions do not receive a due amount of respect, is the fact that we do not take the ordinary pains to entitle them to that respect. There is too much trimming to expediency to allow of the proper fulfilment of our duties. In almost every hospital there is a regulation which provides that in all matters pertaining to the medical care of the patients, the board of managers shall consult the medical board, the inference being that it will act in accordance with the advice given. But that this is becoming a mere matter of form is quite evident from the recent troubles in one of our metroplitan hospitals. The managers may consult the medical staff, if they choose to do so, but they very seldom take any such opportunity. Having the power to make their own rules and interpret them in their own way, there is a constant temptation to overstep their true responsibilities. From a proper understanding of their relations to the medical staff they have drifted into an apparent indifference to their claims, and serious difficulty has been the result. The trouble in the Presbyterian Hospital was caused by just such a condition of affairs, and upon its ultimate amicable solution the establishment of a very important precedent in hospital management depends. The board of this hospital have undoubtedly committed a blunder, but how they can rectify it to subserve the best interests of the institution is still an open question.

We do not see how any disagreement between the managerial and medical boards could arise if each attended to its own business, for in proportion as this was done would harmony of action be promoted. The difficulty has been how to decide the limits of the respective prerogatives to the satisfaction of both parties. The proper way, in our opinion, to accomplish this is to have an adequate medical representation in the board of managers, upon whom the responsibility of deciding vexed questions of supposed interference may rest. These medical gentlemen in the board need not be connected with the institution in any other capacity than that of citizen managers, and who should be entirely independent of any other than the interests of the hospital as a whole. This would be the introduction of a conservative element in our various boards which would tend to exercise a very beneficial influence upon all parties concerned, and prevent many unnecessary misunderstandings, and many disgraceful quarrels. If the profession would restore the influence which they have lost with hospital managers in general, they should strive to secure representation upon boards of management. As one of our correspondents has very truly said, the physician has as much right upon the managing board as the clergyman, and may be of as much use. If this be doubted, we should like to see it proved as the result of actual trial.

◆

A Remarkable Instance of Scarlatinal Contagion.—On the 9th of June a dinner-party and reception were given at a fashionable house at South Kensington, in London. No illness of any kind had been in the house previously. Nevertheless, within two or three days afterwards, out of sixteen persons who were present at the dinner, six were attacked with scarlatina, and several of those who were present at the reception only were attacked with the characteristic sore-throat. Two of the servants were attacked. There is a *suspicion* that the cream furnished on the occasion may have been the conveyer of the contagion, but the investigation, which at last accounts was still going on, had not settled upon the source from which the poison came, or the vehicle of contagion.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 23, 1875.

Dr. E. G. Janeway, Vice-President, in the Chair.

(Concluded from page 544.)

ANEURISM OF ARCH OF AORTA AND INNOMINATA.

Dr. Janeway presented a specimen of aneurism with the following history: Thomas Cunningham, 47, Ireland, laborer; admitted February 21st, 1871. One sister died of phthisis. Patient is temperate. Had gonorrhœa. Was well until 7 weeks ago, when he was taken with relapsing fever and sent to Charity Hospital; had one relapse. One week ago left Charity Hospital as cured, but two days before leaving noticed a small painful tumor under the right sterno-clavicular articulation. The tumor seemed to decrease at first after leaving Charity, but two days after it began to enlarge rapidly and gave him great pain.

On admission, complains only of pain in right shoulder and right side of neck and face; appetite good, bowels regular, pulse and temperature normal.

Physical examination reveals a tumor the size of a hen's egg under the right sterno-clavicular articulation extending upwards in the line of the carotid artery. Tumor pulsates. No thrill or bruit. Ordered tr. ergot ʒ i. t.i.d.

February 26th. Pain increased in severity. The tumor is now double the size it was on admission. Superficial veins on right side of neck are enlarged. Pulse less distinct in right than left radial artery.

February 27th. Tumor occupies supra-sternal region, being most distinct on right side. Pulsation is distensive and distinct. No thrill and no distinct bruit.

Physical examination of lungs gives bronchial breathing behind, distant on expiration. Heart sounds labored, apex beat indistinct and 1 inch to left of normal position.

March 3d. Patient out on pass.

March 4th. Patient has not returned and is discharged.

Second Admission, December 22d, 1872. Patient was to-day again admitted into this hospital, suffering very severely from an access of his symptoms. The tumor has increased very much. Has considerable dyspnœa, and the pain is very great. He remained for three months, and was discharged improved.

Third Admission. On the 26th June, 1873, he was for a third time admitted, on this occasion for a fracture of lower jaw, the result of a fall through a hatchway on the ship where he was working. He lay quite unconscious for a week and got finally better.

The aneurismal tumor had been found to have increased in size since his last admission.

July 3d. The record book of second surgical division states "that a physical examination was made to-day, showing an aneurism of innominate artery. It is ovoid, 2½ × 1½ inches, running obliquely downwards from right to left to border of sternum to the junction of first and second portions. It seems to have come up behind the first rib, and pushes out the sternal end of clavicle. The portion of the tumor protruding is hard, and seems to be almost solid, though by placing two fingers over the tumor pulsation of it seems to separate them. Bruit distinctly heard. Heart is hypertrophied.

July 27th. Aneurism does not seem to trouble him now.

March 14th, 1874. He is marked "discharged cured," nine months after admission.

Fourth Admission, December 16th, 1874. Patient has been working as a laborer constantly since his discharge, without any inconvenience from the tumor, until the middle of last month. The tumor has not perceptibly increased in size. He then noticed slight irritation in larynx. This lasted but for a few hours. At the same time the tumor increased in size, slightly, at its prominent point, and, as he says, was softer and more painful than the rest of the tumor. These symptoms are all that the patient noticed when he applied for admission.

On examination, find tumor occupying the inner margin of the left lateral half of the base of the neck, in size measuring 7⅜ inches in circumference, 2⅞ inches in length, 1⅝ inches in diameter, and protruding from the surrounding parts about 1½ inches. Its growth seems to have been outwards, upwards, and towards the median line, and causing absorption of the sternal end of clavicle. It is hard to the feel, except at its most prominent point, which is soft and fluctuating.

The skin covering it is of the color of the integument about it, except this point last mentioned, which is of a dark bluish red. On firmly grasping the tumor you detect an expansive pulsation synchronous with the cardiac impulse. Auscultation not only reveals the transmitted heart sounds, but also a distinct bruit.

Patient has numbness in right arm and buzzing in right ear; these symptoms came on since his fall into ship's hold. Both pupils alike. Temperature of right side 99½, of left side 99¼. Right radial pulse feebler. Has slight cough, which he attributes to cold.

March 2d. Discharged improved.

Fifth Admission. Thomas Cunningham, 51, m., Ireland, laborer; admitted May 15, 1875. One week ago the skin over tumor became red and inflamed. Tumor size of orange is found at situation of interclavicular notch. The skin over the tumor is red and tender, and at its most prominent portion a scab is adherent, under whose edges pus can be seen. The skin is very thin, and there is distinct fluctuation immediately under it: the pulsation here is not expansile, but communicated from aneurism below. On the right side of the sternum pulsation can be felt for a distance outward of about 3 inches, and extending vertically from above the clavicle to second rib. There is numbness of right arm. Right radial pulse weaker than left; neuralgic pains in arm, shoulder, and neck, right side.

Auscultation.—Double murmur over base of heart.

May 20th. Last night scab separated, and a considerable amount of bloody serum escaped. Pressure on lower part of tumor evacuates more. Tumor diminished in size and altered in shape, being compressed laterally.

May 22d. The central portion of tumor is sloughing, small ulcer ¼ inch in diameter.

May 25th. Last night the protruding mass came away, being a conical mass composed of laminæ of fibrine 1¾ inches thick and 1¼ inches in diameter. There was a very profuse and almost fatal hemorrhage. Lint was quickly stuffed into the cavity, and pressure brought to bear by the orderly, and the hemorrhage stopped.

May 27th. Tumor has been suppurating freely and discharging great quantities of bad pus.

May 28th. Had another hemorrhage, probably lost 12 oz. blood. Patient is very weak.

June 1st. Had a third hemorrhage last evening. Lost but a small quantity, but it so reduced his strength that he never fully rallied, and died this morning, 6 A.M.

Correspondence.

THE CONTAGIOUSNESS OF PUERPERAL FEVER.

To the Editor of the Medical Record.

Sir:—Since reading your editorial on the Contagiousness of Puerperal Fever, in a recent number of The Record, I feel as if I was invited to send for publication the enclosed letters, with a few additional and explanatory remarks. The first letter is one written by me to Prof. Barker, last winter, asking more for advice than for information. It will explain itself, and is as follows:—

Frankfort, Ky., *January* 19, 1875.

Prof. Fordyce Barker:

Dear Sir:—I hope that I will not trespass too much on your time by requesting your special attention to this rather lengthy letter, and also a full and pointed answer to the questions discussed therein. The subject is one of very great importance, in my judgment, and very nearly concerns the welfare of suffering women. I will premise by saying that I would not have troubled you about this matter if I could have found in any book anything which would have satisfied me perfectly as to some of the points. I will now relate a series of circumstances, exactly as they occurred, and as nearly as possible in their order:

Dr. D——, of this city, attended a lady with facial erysipelas, from the 9th to 22d of December ult. On the 14th of same month he delivered Mrs. P. (white) of a child at full term. On the 17th she had a low form of fever, with slight peritonitis, and died. On Jan. 13th he delivered Mrs. W. (colored). On the 15th she had the same fever, with similar symptoms, and died on the 16th. On the 14th January he examined the womb of Mrs. W. (white); found it retroflexed, partially prolapsed, and intensely congested, with one or two abrasions on the os. He replaced the womb *with a sound*, and touched the abrasions with tincture of iodine. The following day I was called, in his absence, to see the patient, whom I examined digitally only. I found the uterus prolapsed, retroflexed, and enlarged. I introduced a pledget of cotton wool, saturated with iodoform and glycerine, for the purpose of partly sustaining the womb in its normal position, and depleting it to relieve the congestion. I also introduced into the rectum a suppository of opium and belladonna, to relieve the intense pain which she had in the region of the womb. I transferred the case to him, as he came in during my visit. On the 17th (two days after) I was asked to see the patient in consultation with Dr. D., and found her moribund. She complained of *slight tenderness only* over the abdomen; had diarrhœa and obstinate vomiting. The vomited matter resembled coffee grounds. She died of a low asthenic fever, similar in every respect to that of the first two patients; in other words, of a fever answering the description of that which is termed in your work *puerperal fever.* Mrs. W. was *not pregnant*, as her child was only a few months old.

Dr. D. began treating Louisa (colored) for uterine disease on the 10th of January. On the 13th she had fever, and on the 17th (same day as Mrs. W. (white) she died. He had in the meantime delivered two women, and treated other cases of uterine disease without any unfavorable symptoms up to date (19th). I forgot to mention that Louisa (colored) was also not pregnant. No other cases of this character have occurred in this county in years, but I hear that in an adjoining county several women, under the care of two physicians (partners), have died very suddenly after delivery.

I know that in one of your articles, embraced in your "confession of faith," you deny that the specific poison of the exanthemata can produce in the puerperal woman true puerperal fever. So the fact of Dr. D. attending the case of facial erysipelas might not have caused this peculiar fever in the lying-in women he afterwards attended. But this point I wish you to consider, viz.: Suppose these puerperal women had pure puerperal fever (which I do not doubt, let the cause be what it may), could Dr. D., after attending these persons, impart by manual examination a specific poison which would cause similar symptoms in a non-puerperal woman? In other words, can a non-puerperal woman have what is called puerperal fever? It might possibly be said that the treatment of the non-puerperal women in these cases had produced a peritonitis rapidly fatal, and not necessarily caused by any specific poison. Trousseau, in his article on perihysteric abscess, mentions cases which might seem similar to these. But, to say the least, they are wonderful coincidences. Refer to your work on "Puerperal Disease," page 449, lines 20, 21, 22. You quote in these lines this remark of Schroeder, "The disease is manually transferable, as the secretions of puerperal fever patients transferred to other women may produce puerperal fever." Can the word "non-puerperal" be prefixed to "women" in this sentence with propriety?

The point which concerns me individually, and is of interest to others, is this: Could I now attend a lying-in woman with impunity, without taking the necessary precautions? and what are the necessary precautions? You will remember that I examined *non-puerperal* Mrs. W., per vaginam, on the 15th, the day after Dr. D. had treated her disease (prolapse, retroflexion, etc.) by local applications, and when it might be supposed that he imparted the specific poison. I also saw her, but made no vaginal examination, the day of her death. I was not near any of the other cases.

Suppose I had attended a case of puerperal fever, genuine in every respect; knowing this fact, and the consequent danger, would the following precautions, which I have taken, be sufficient? Taking off every article of clothing, even hat, boots, fur collar, gloves and cravat, bathing in a strong solution of chloride of lime, washing even my hair; then in another tub, with strong carbolic soap, in hot water, paying special attention to my hands and nails; then in simple water. After this, without touching any clothing which I had laid aside, to dress myself in clothes, from *my skin out*, which were partly new, and others which I had not worn for a month. In your appendix "Puerperal Diseases," first paragraph, beginning on page 516, you say: "Every physician in New York took the greatest precaution to prevent the spread of puerperal fever." What was this precaution? Was it to thoroughly disinfect themselves, change their clothing, and continue to attend midwifery cases, and thereby prevent the disease from tracking them? How long a time, after seeing a case of puerperal fever, would be proper for a physician to refuse to attend a lying-in woman, provided he properly disinfected himself? I ask this question in case it is necessary absolutely to wait for a certain length of time under any circumstances.

I have addressed this letter to you, because I regard you as authority on the points mentioned. I hope you will answer me by letter, or if this is too much trouble, will you be kind enough to hand this to the Editor of THE MEDICAL RECORD, and ask him to publish it. If agreeable, you might write whatever you think necessary, and publish it as an addendum to what I have written. I would like to have your opinion or that of some recognized authority on this subject.

Very respectfully,

W. B. RODMAN.

To this letter, Prof. Barker replied as follows:

"*January 24th*, 1875.

"DEAR DR. RODMAN:—I am constantly in receipt of letters from different parts of this country and from Europe, in regard to subjects referred to in the work 'On Puerperal Diseases,' but I have received no letter comparable in interest with the one I read from you yesterday. . . .

"Your letter, with its most interesting facts, must be published. . . . . But I would make this suggestion. I feel morally certain the coming few weeks will furnish for you, in your neighborhood, or within the sphere of a certain epidemic influence, which will be apparent, additional facts of great value. Will it not be wise to delay the publication until we get all the facts attainable? Perhaps some of your confrères will be able to give you other striking cases; . . . then, with your permission, I will append my remarks.

. . . .

"Can you not get an authentic statement of the facts, which you refer to as having occurred in an adjoining county?

"Now as regards your questions, I should say that you are perfectly justified in attending a lying-in woman after taking such precautions as you specify. But all the personal precautions that you take will not protect your patient from an overwhelming, pernicious, epidemic influence, and you cannot be held responsible for this when you have used every means known to science to avoid the danger of being a medium of communicating disease.

"After using such means as you describe, I do not think that it is your duty to wait a certain length of time, although there are some very curious facts in medical literature that are very staggering on this point. However, all of these facts occurred antecedent to the knowledge of the chemical action and power of the disinfectants which we now use.

. . . .

"Yours sincerely,

"FORDYCE BARKER."

As Prof. Barker suggested, I waited nearly two months for the occurrence of similar cases in my own neighborhood, but observed nothing like those which I first reported. I also corresponded with the physicians in an adjoining county, but learned that the rumors I heard were exaggerations, and that a case of non-specific puerperal peritonitis had given rise to the reports. Dr. D., as soon as he learned the nature of his fatal cases, immediately used every precaution, that is, he changed his clothing, and used disinfectants. He continued in practice as usual, and had no more trouble.

Shortly after I received Prof. Barker's letters, I read the article published in the January number of the *Am. Journ. Med. Sciences*, written by Dr. Parry, of Philadelphia. I wrote to him giving the same facts which I had communicated to Prof. Barker, and asked him very nearly the same questions. He answered my letter, and stated that he and Prof. Barker differed in their views in this. Prof. B. believed that puerperal fever was a disease *sui generis*, whilst he believed that the term puerperal fever was unfortunate, as it was made, by different authors and writers, to include a variety of diseases, such as scarlatina, erysipelas, diphtheria, pyæmia, and septicæmia, etc., in the puerperal woman.

I wrote these facts to Prof. Barker as he requested, and stated that if his views were right, I would find it difficult to explain the cases which occurred here in Frankfort, but that if these cases could be considered septicæmic, or erysipelatous, they could be explained. Billroth and D'Espine both regard septicæmia in the puerperal woman as puerperal fever. Prof. Barker never replied to my last letter.* But it however appears that his prediction that other cases would occur within the sphere of a certain epidemic influence was not verified, and that the "factor" of the disease in the cases mentioned is most probably a poison manually transferred from a case of facial erysipelas to a puerperal woman, and from thence to another puerperal woman, and to two *non-puerperal* women—these latter having abrasions on the uterus, *which were not protected by granulations.* This poison, it seemed, clung to the hands of Dr. D., and could not be removed by ordinary washing with soap and water, but as soon as chloride of lime and carbolic-acid soap were used, they seemed to destroy it—at least Dr. D. had no more trouble after their use.

I merely write these *facts*, and have intimated what my views concerning them are. I do not care to go into any detailed argument or citation of authorities to prove my point. It will at once occur to the reader that rarely indeed do *non-puerperal* women become the victims of this peculiar poison manually transferred. I do not recollect a single instance of this kind mentioned by any authority, and it is on this point that I wish to hear from those who are justly regarded as authorities on the subject.

W. B. Rodman, M.D.

Frankfort, Ky.

GUNSHOT WOUND OF ABDOMEN AND PASSAGE OF BALL PER RECTUM.

To the Editor of The Medical Record.

Dear Sir: In your issue of July 17th I notice an interesting case of penetrating wound of the abdomen by a pistol shot, and the subsequent passage of the ball per rectum, reported by Dr. Wm. O'Meagher. This case called to my mind one that I had under my care during the early part of the late war, the notes of which I have hunted up, and herewith send you a copy of them, thinking that perhaps they may be of interest to your readers.

John W. Beard, a private of Co. F, 21st N. C. Regt. (Confederate), was wounded at the battle of Winchester, May 25, 1862, by a Minie-bullet, while in the act of climbing over a wall. The ball entered 2¼ inches to the left of the second lumbar vertebra. At the time there were no particular indications of the locality of the missile. There were no symptoms of shock at the time, nor was there ever any pain to speak of in the abdominal region. For two days after the wound was received the patient passed bloody urine. There was no discharge of fæcal matter nor gas from the wound. The bowels remained in a normal condition, there being from one to two healthy evacuations daily since being wounded. On the 16th day after the battle the ball passed from the body per rectum while in the act of defecation. The wardmaster and a number of the patients heard the ball as it fell into the vessel, and they all bear witness to the fact. At the time, and for a few hours after the wound, the patient was paralyzed in the lower extremities. This condition soon passed off, and since that time the patient has had no uncomfortable symptoms.

June 18, 1862. Patient still doing well.

June 25. Still improving. At this time I was ordered to rejoin my command, and I heard no more of this man till some three months afterwards, when, as I was passing through Gordonsville on my way to Richmond as a guest of Stonewall Jackson's troops, this man accosted me in the street; he had rejoined his regiment, and told me he was feeling as well as ever. It is a matter of interesting speculation where this ball was for this period of sixteen days. Could it have lain in contact with the bowel till it ulcerated through, and this without producing any inflammatory symptoms? Even if the ball passed between the reflections of the peritoneum without touching the membrane, it is impossible to account for the fact that ulceration through the intestine occurred without some peritonitis, when we call to mind the fact of the frequency of inflammation of this membrane from contiguity to inflamed tissues. The fact that there were no fæcal discharges would seem to prove that the ball did not pass immediately into the bowel. The most reasonable solution of the matter seems to me to be that false membranous matter was thrown out, surrounding the ball, and thus preventing any direct opening from the outside into the bowel. This case differs from Dr. O'Meagher's in the fact that here we had the large conical Minie-ball, and the wound was open for weeks. In Dr. O'Meagher's case the ball being so very small it might have penetrated the intestine at first, and the hole being so very small it seems that it might have been so covered by a fold of mucous membrane as to prevent the escape of any fæcal matter until adhesive inflammation should have had time to close the intestinal wound.

I am, sir, respectfully your ob'd't serv't,

Josiah F. Day, M.D.,
Late Surgeon and Brevet Lieut.-Col. U. S. Vols.

No. 77 North Main St., Fall River, Mass. *June* 22, 1875.

MISTAKES IN PRESCRIPTIONS.

To the Editor of The Medical Record.

Sir: The letter of the "dispensing chemist," Mr. T. H. Sayre, which appeared in a recent issue of The Medical Record, and in which Mr. S. offers his advice to physicians and pharmacists, contains some statements which challenge criticism and refutation. Mr. S., in his first illustration of physicians' mistakes in prescribing, says that a prescription calling for two drachms of subnitrate of bismuth mixed with two grains of sulphate of morphine, which he refused to dispense, was afterwards made up in "another drug store." This statement must make the impression upon the reader that in "other stores" the dispensers of medicines are less cautious, less conscientious than in Mr. S.'s. If it was not Mr. S.'s intention to create this impression, he ought to have, previous to the publishing of this illustration, ascertained if the dispenser of the medicine at "another store" had not consulted the prescriber, or if the latter had not altered the prescription *before* it was dispensed.

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* Dr. Barker's absence from the city will explain this seeming neglect of courtesy.—Ed.

That no pharmacist on Sixth Avenue, or in any other part of the city, would compound such a prescription without applying that *generally observed* rule of precaution may be safely warranted.

Second: If one makes a citation from an authority he is expected to quote it as the authority gives it. But Mr. S., who "intuitively" knew that the potassium bichromate prescription was wrong, was deceived by his intuition when he read from the dispensatory $\frac{1}{3}$ of a grain as the dose, while that authority plainly says it was $\frac{1}{5}$.

Third: Mr. S. pays a very flattering compliment to the physicians whose prescriptions come to his drug store when he says that he has nearly *every day* one or *more* prescriptions to send back for correction, and one might believe that he is a special attraction for careless and ignorant physicians.

This statement of Mr. S. is regarded as a gross exaggeration by all the pharmacists who have experience from a large prescription business, and in whose pharmacies the latter is far predominating over the fancy, soda-water, and nostrum trade. The favorable impression first made by the apparent good intention of Mr. S.'s letter is destroyed by this statement, which gives it the style and character of a boast.

A Pharmacist.

Aug. 1, 1875.

SANITARY CONDITION OF RURAL RETREATS.

To the Editor of The Medical Record.

Sir:—Your article on the "Sanitary Condition of Rural Retreats," including *drainage*, &c., reminds me of a question I have for some time desired to ask, viz., How can we carry water from our sinks and water-closets in our country homes in Maine (where the frost is frequently *four feet deep*), and avoid the risk from a backward flow during the winter, from the freezing of the *mouth* of the drain?

Many have wells in their cellars or elsewhere, within a few feet of their kitchen sinks (and it is very desirable to have them so near); they attempt to carry off the water from the sink by a lead pipe leading into an underground drain, below frost, near the house, but gradually coming to the surface some three or four rods from the house.

The drainage is good till cold weather comes. Then the mouth of the drain freezes, and the frost extends upward a rod or two. Solid materials accumulate, the drain becomes choked, and before spring comes, the water of the well is perceptibly changed by the filthy soakings of the drain. A plan, in detail, for the construction of a drain which shall obviate these difficulties, will accomplish much good in country towns and villages, where they seldom have experts for this business.

A Subscriber.

[The difficulty in question would no doubt be overcome by sinking the mouths of these drains below the frost mark; in other words, causing them to empty into cesspools four or five feet below the surface. To have these drains as far as possible from the wells is a necessity which need not be suggested to our correspondent.—Ed.]

* * *

Dr. Brand, a physician of St. Catharines, sixty miles above Memphis, Tenn., was lately shot in the back of his head and instantly killed, by an unknown assassin, while sitting in his office.

HOSPITAL APPOINTMENTS.

To the Editor of The Medical Record.

Sir:—Whether there is any established system of favoritism in conferring hospital appointments upon professional men, I have no certain means of knowing. "Veritas" claims that there is such a system, and "Justice" presents a practical suggestion calculated to diminish favoritism, and benefit a larger number of medical men. It is undoubtedly true that too few competent practitioners of medicine, in our large cities, have the advantages of hospital connections to which their inclinations, experience, and acquirements entitle them.

If it is an honor and benefit for the favored few, it surely would be of equal honor and profit to all who could become thus officially connected with the large medical institutions. There is an element of radical injustice in the wholesale appropriation of these honorable and responsible staff positions by the comparatively few medical men who hold them, and who likewise materially control new appointments for the benefit of their own college rings, society cliques, or pupils and *protégés*, through a long series of years.

To cling to a hospital connection is to cling to something esteemed valuable, else such offices would go a begging, which surely is not seen to be the case. It must be of value also in the absence of all pecuniary compensation for professional services, as no salaries are paid. It must be of value also in the face of great personal inconvenience, loss of time, and considerable private expense, for these drawbacks are true of all such public official positions. Any prevailing system, therefore, which deprives the rank and file of the profession (we might say the non-professional portion of the medical fraternity) of the benefits of these appointments, some time during their term of active professional labor, is a species of injustice that has no sufficient excuse for its continued existence.

Our leading medical organizations and societies ought certainly to take this matter into grave consideration for the advantage of their own active members. A surge from the trough of the professional sea will lift the matter into prominence, and a reckoning of its position and consequence, as an obstacle to general progress and mutual good, be made with little difficulty.

Take the case of my very intimate friend. He graduated with credit and some class distinction about eighteen years ago, from one of our best New York medical colleges, served a term in our best general hospital, visited Europe for medical observation, returned and entered the medical corps of the U. S. Army, serving with the rank of major during the entire war. After his retirement from the service he went into the country to practise, made a good living and an excellent professional connection. After seven years he found the way open for his return to the city in which he was born and educated. Business in the city prospers, and he has a cliency that highly respects his professional opinions, and which seeks with the peculiar enthusiasm due to a successful medical adviser the aid that he is able to afford. His local connections are influential, his medical course steady towards a ripe and sound experience, his army service signalized by some exceedingly responsible duties, and several situations of a kind requiring superior executive and administrative skill. He has written and published many worthy and scholarly papers, and enjoys good evidence of possessing some special expertness in some of the branches of medical research and practice. Added to all this, he has likewise the natural and laudable ambition of his brethren of the faculty and of the hospital staff. He desires to prove himself the man he believes himself to be, and only awaits the opportunity. He intends to wait for an invitation, or, say an appointment, subject to his acceptance. I wonder how long he will have to wait!

His case, though typical of the mass of our regularly educated and estimable practitioners, is not exceptional, nor to be regarded as one of the few with merits deserving reward, and likely enough, in course of time to receive due regard and acknowledgment from boards and faculties. Many hundreds, equally deserving, possibly more so, will never, under the present system, receive any public recognition and reward. They have ceased to consider it possible, and have no realization of a public sentiment in their favor that would be of service to them in an agitation of the question with a view to securing their rights.

My friend is as little likely to receive such rewards as any other of the general run of highly respectable, but unfostered medical men. We call for *the surge from the trough of the professional sea.* The surge will never come from the *crest* of the waves, and will not be a *tidal-wave* from the *trough;* but time and tide somehow effect great and lasting changes that have always, in the long run, benefited the world.

HOPE.

NEW YORK CITY, *July* 31*st*, 1875.

THE PRESBYTERIAN HOSPITAL AFFAIR.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—After a careful reading of the note of "Justitia," published in THE RECORD of July 24, apparently in answer of my note of two weeks before, I can only find in it a labored plea for retaliation upon the "only medical man who held a position on the Board of Managers of the Presbyterian Hospital," because the rule which causes the physicians and surgeons of the hospital to be appointed annually is said to have been introduced by him. There is also to be found in it a criticism upon our hospital appointments, a question THE RECORD has many times ably discussed, but which does not fairly enter into the matter now in hand. The rule of annual appointments, or elections, obtains in most of the hospitals of New York. May we not reasonably and charitably suppose, that in placing it among those of the new hospital there was no intention of making a legal basis for the arbitrary removal of medical officers, but merely a desire to copy the rules of the old New York Hospital, which are closely imitated in some other regulations of the Presbyterian? In view of his years of service in the New York Hospital, where a similar existing rule was never carried out in this or in any analogous way, it cannot be supposed that the gentleman in question ever imagined, if he actually introduced the law, that it would ever be made a justification for a failure to re-elect capable men, against whom their colleagues in the Medical Board had made not even the shadow of a complaint. The law of annual elections is undoubtedly a bad one—one that medical men ought not again to consent to; but no attempt has hitherto been made to put it in force in the manner that has awakened the protests of sixty hospital men. I have never heard it questioned that, under the rule, there was a *legal* right to do just what the directors of the hospital have done; but it is not under that aspect of the case that those who are laboring to uphold the dignity and self-respect of hospital appointees and of the profession are arguing.

Precedent, years of custom, all notions of common good faith, had long since made such regulations null and void in all the hospitals of New York, except in actual emergencies, recognized as such by the Medical Board, such as the insanity of a medical officer, when it has been made available. Perhaps the management of Bellevue Hospital forms an exception to this rule; but that hospital has been under political control, and even there an action, for which some claimed that it made a precedent for the course of the Managers of the Presbyterian, was finally rescinded. "Justitia," like one of your former correspondents, attempts to justify this recent wrong done to the profession, by a counter-charge of previous wrong-dealing and injustice on the part of medical men to each other, or of a clique to the profession. To this kind of argument the old answer may again be given—No number of wrongs will make a right. We now have an opportunity, by means of this discussion, to improve the relations between medical men and the directors of hospitals; perhaps even of reforming the present system of medical appointments, about which "Justitia" seems to speak with feeling. Let us as a profession, whatever we may have done in the past, now stand by each other, and not lose a golden opportunity, by our "discordant, dissevered, and belligerent" action, for attaining our true status, while we say and do "the things that make for peace" among ourselves.

I trust that the large majority of the profession, whatever inducements may be held out to us to weaken the influence of our class by sowing dissensions among us, or whatever temptation we may have for retaliations for real or fancied injuries, will be found united on all questions affecting our professional honor or self-respect. I may add that, in the opinion of many, of whom your present correspondent is one, such pronounced views as those of "Justitia," as to "a clique who have attempted to govern our hospital appointments," would be rendered more weighty were they given to the public on the writer's name.

With great respect, I am yours,

D. B. ST. JOHN ROOSA.

July 30, 1875.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from August 1*st*, 1875, *to August* 7*th*, 1875.

MIDDLETON, J. V. D., Assistant Surgeon.—Leave of absence extended one month. S. O. 83, Mil. Division of the Missouri, Aug. 2, 1875.

HUNTINGTON, D. L., Assistant Surgeon.—Relieved from duty in Department of California, and to report in person to the Surgeon General. S. O. 158, A. G. O., August 5, 1875.

BROWN, HARVEY E., Assistant Surgeon.—Assigned to duty at Fort Barrancas, Fla. S. O. 141. Department of the Gulf, July 31, 1875.

STYER, CHAS., Assistant Surgeon.—Assigned to duty at Fort Macon, N. C. S. O. 109, Department of the South, August 3, 1875.

CRAMPTON, L. W., Assistant Surgeon.—Assigned to duty with Battalion 13th Infantry, in camp at Mississippi City, Miss. S. O. 142, Department of the Gulf, August 2, 1875.

Lord, C. E., Assistant Surgeon.—Assigned to duty at Fort Buford, D. T. S. O. 145, Department of Dakota, July 31, 1875.

NAVY NEWS.

August 5th.

Lench, T. W., Medical Inspector.—Reported his return home, having been detached from the Asiatic station, and granted three months' leave of absence.

Medical Items and News.

The New Jersey State Dental Society.—The New Jersey State Dental Society (fifth annual meeting) recently held a three day's session at Long Branch, N. J. The meetings were well attended and were interesting and instructive. The Board of Examiners was in session during the meetings of the Society, and accepted many practising dentists in accordance with the requirements of the act to regulate the practice of dentistry in New Jersey.

Among the numbers present from New York were Dr. J. G. Ambler, of the First District Society of New York; Dr. R. P. Perry, Dr. A. P. Merrill, and Dr. George H. Perine, delegates from "The American Academy of Dental Surgery." The annual address was delivered by the President, Dr. G. C. Brown, of Mount Holly. The following were the subjects of the essays read: "Operations hurriedly Made and their Opposite," by Dr. T. B. Welsh, of Vineland; "Dental Education," by Dr. C. S. Stockton, of Newark; "The Cause and Cure of the Absorption of the Alveolar Process," by Dr. J. R. Goble, of Hoboken; "The Best Mode of Inserting Partial Sets of Teeth," by Dr. J. Hayhurst, of Lambertville; "Amalgam," by Dr. E. F. Hanks, of Jersey City; "Celluloid *vs.* Rubber," by Dr. Leo Delange, of Bordentown. In addition to the essays read and discussed, Dr. George H. Perine. President of the American Academy of Dental Surgery, by special request illustrated the use of the galvano-caustic battery for certain operations in dental surgery. The advantages set forth are that the operation is instantaneous, painless, without shock or hemorrhage, all of which is of great importance in surgical operations in the mouth. The Doctor made extended remarks, gave experiences to his professional brethren, and strongly recommended the use of the battery to them. (See page 480, vol. 10, No. 28.)

The following officers were elected for the ensuing year: President, C. S. Stockton, of Newark; Vice-President, J. W. Scarborough, of Lambertville; Secretary, Charles A. Meeker, of Newark; Treasurer, Wm. H. Dibble, of Elizabeth. The next annual meeting of the Society will be held at Atlantic City, on the second Tuesday in July, 1876.

A Hospital in Utica, N. Y.—The Faxton Hospital —a building costing $50,000, the free gift of Hon. Theodore S. Faxton—has been formally opened and turned over to the authorities of the city of Utica. Remarks appropriate to the occasion were made by Judge Bacon, Hon. E. H. Roberts, Hon. Horatio Seymour, and others. Mr. Faxton has three other monuments in Utica which will perpetuate his name and add honor and blessing to his memory—the Faxton Old Ladies' Home, on Faxton street; Faxton Hall, at the junction of Varick and Court streets, for the education of the children of factory operatives by day and night; and Faxton Hospital, the splendid new institution just opened. The first, cost $25,000; the second, $15,000; and the hospital gift, $50,000—an aggregate of $90,000.

Saint Mary's Free Hospital for Children.—The Managers of this Hospital have issued cards, signed by Bishop Potter, certifying that the possessor has placed "one brick" in the new Hospital in Thirty-fourth street, adjoining their present building (No. 407 West). The sum represented by this certificate is ten cents, and the money given will represent an actual part of the building. This method of raising funds has before been successfully resorted to for similar purposes, and, it is hoped, will add considerably to the building fund in the present instance. Thirty thousand dollars is needed for the purchase of the two lots required, and the building which is on them.

New York State Homœopathic Asylum for the Insane.—The following gentlemen were elected to office at the recent meeting of the new Board of Directors of this Institution, located at Middletown:—President, Fletcher Hayden. Jr.; Vice-President, Grinnell Burt; Secretary, M. D. Stevens; Treasurer, James B. Hulse.

The Presbyterian Hospital Affair.—The following preamble and resolutions were adopted at the recent meeting of the Medical Board of the North-Western Dispensary, New York.

Whereas, The Board of Managers of the Presbyterian Hospital of this city, at their last annual election, ignored all precedents and dropped from the Visiting Staff four men of reputable standing in the profession, and against whom said Board of Managers declare that they had no charges to make either as to their professional ability or gentlemanly conduct; and

Whereas, Said Board filled the vacancies thus made without consulting (as is customary) the Medical Board or advising with them regarding said appointees; and

Whereas, Said Board of Managers contemptuously treated all communications from the Medical Board and from the profession at large:

Resolved, That the North-Western Medical and Surgical Society most emphatically approve the action of the late Medical Board, and protest against the injustice of said action of said managers.

Resolved, That in our view a valuable precedent will be established, the dignity of our calling vindicated. and the harmonious action of the members of our profession secured, to meet such cases by our absolute refusal to accept positions made vacant in such a manner.

Committee.
C. S. Wood, M.D.,
Wm. M. McLaury, M.D.,
F. K. Bosworth, M.D.,
E. K. Henschel, M.D.,
Secs. pro. tem.

Dr. George Herriot, late of Yonkers, died suddenly on the 8th instant.

Telegraph Operators are the subjects of a palsy similar in nature to that which is known as "writer's cramp."

Apomorphia.—Dr. W. F. Duncan writes:—Will you be kind enough to correct two errors observed in the article on Apomorphia, in Record of August 7th? 1. Substitute (gr. ii.) two grains for (gr. vii.) seven grains in the formula given in the article; also substitute three (3) years for two (2) years in the last line.

The Subscription started among the Parisian medical students for the relief of the sufferers by the inundation in northern France, has reached the sum of 4,230 francs.

Original Communications.

SOME OF THE CONDITIONS UNDER WHICH PNEUMONIA PROVES FATAL.

By FRANCIS DELAFIELD, M.D.

[A paper read before the County Medical Society, May 24 1875.]

Most of us, during the past winter, have had our attention called to the subject of pneumonia. To me one feature of the disease has been especially interesting, namely, the conditions under which it proves fatal; and it is to this aspect of the subject that I would ask your attention this evening.

For the purpose of elucidating some of these conditions I have collated the records of 122 cases of acute lobar pneumonia, all occurring in adults, and in all of which I either made or superintended the post-mortem examinations. Most of the subjects were hospital patients.

Through the kindness of the Board of Health I have also been furnished with some data regarding all the deaths from pneumonia occurring in this city from March 1st, 1873, to March 1st, 1875. From these records of the Board of Health I have selected only those cases which occurred in persons over five years old, and which seemed to be cases of acute lobar pneumonia.

The entire number of deaths from acute lobar pneumonia during this period of two years,—March 1, 1873, to March 1, 1875, was 2,410. Of this number, 1,134 cases occurred from March 1, 1873, to March 1, 1874; and 1,276 cases from March 1, 1874, to March 1, 1875.

During what months do the greatest number of deaths from pneumonia occur in New York?

By looking at Figures 1 and 2 we see that in the three winter months, December, January, and February, and the three spring months, March, April, and May, we find most of the deaths. In Fig. 1 the maximum is reached in May, in Fig. 2 in January.

Is there any relation between the number of deaths and the condition of the weather?

The weather reports I have employed are those furnished by the Central Park Observatory.

In Figures 1 and 2 is also represented the mean temperature for each month of the year. If we compare the curves of temperature and those of mortality—the dotted line represents the curve of temperature—we see that they nearly correspond. There is, however, an exceptionally high mortality in May, in Fig. 1, without a correspondingly low temperature. We may also notice that the lower temperatures which prevailed in 1874–1875 were accompanied with a greater number of deaths than occurred in the corresponding months of 1873–1874.

At what age do the largest number of deaths from pneumonia occur?

In Figures 3, 1873–74, and 4, 1874–75, we find nearly the same relative mortality for the different ages. The smallest number of deaths is between the ages of 5 and 20; then the number increases every ten years until between 40 and 50 the maximum is reached; then the number again decreases until the age of 70 is reached.

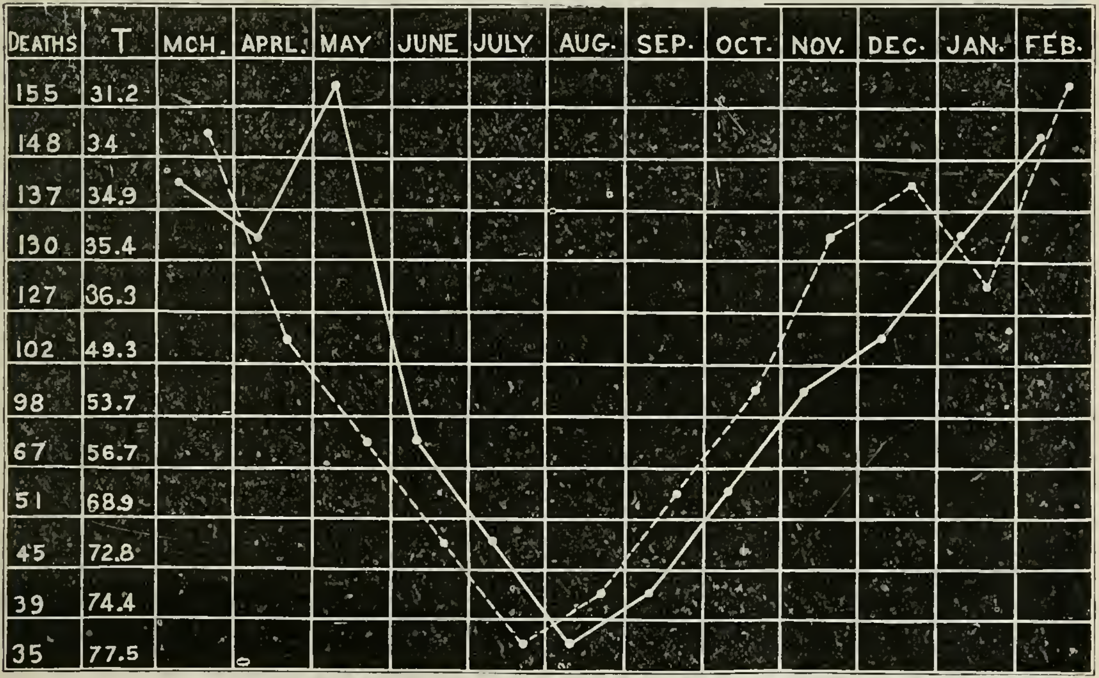

Fig. 1. 1873–1874.

What is the duration of the disease in the fatal cases?

In Figures 5 and 6, representing the two years, we find shown in a striking way the preference of the disease for certain days. Beginning with a few deaths on the first day of the disease, the curve of mortality runs rapidly up and reaches its maximum on the seventh day, then falling somewhat on the eighth and ninth days, it ascends on the tenth. From the tenth day there is a rapid decrease in the deaths, until the fourteenth day, when the curve rises abruptly. In the same way there is a third maximum on the twenty-first day and a fourth on the twenty-eighth day.

I hope to receive from the Board of Health the records of several more years, and thus to be able to increase the statistics just given.

I have also compared the curves of the range of temperature, of the barometer and of the degree of humidity for the same two years, but as they seem to have no definite relation to the curves of mortality they are not printed here.

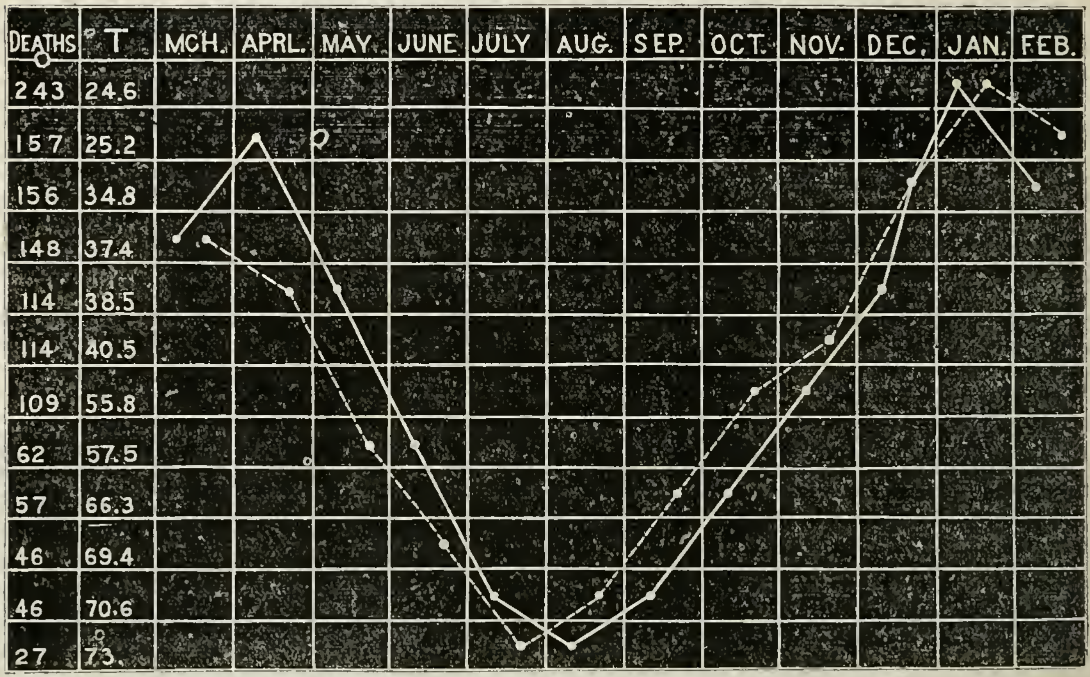

FIG. 2. 1874–1875.

I will now ask your attention to the facts presented by the one hundred and twenty-two cases of pneumonia in which autopsies were made.

In studying the records of these autopsies I have endeavored to find answers to the following questions:

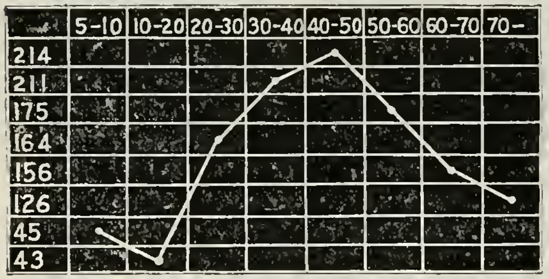

FIG. 3.

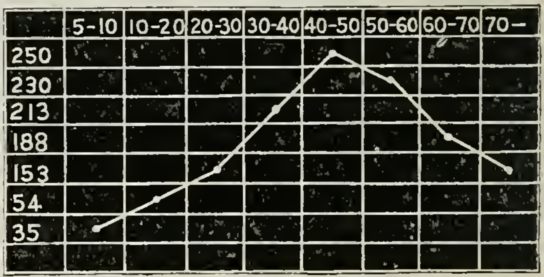

FIG. 4.

I. In what condition do we find the inflamed lung?

1. In what stage of the inflammatory process do we find the lung?

2. How soon after the commencement of the disease are the different stages of the inflammation developed?

3. How large a portion of the lungs is found to be hepatized in fatal cases?

II. What lesions in the other viscera do we find as complications in fatal cases of pneumonia?

III. From what causes do these patients die?

1. From their inability to bear a small local inflammation.

2. From the development of constitutional symptoms out of proportion to the amount of lung inflamed.

3. From the solidification of so much of the lungs that respiration is seriously interfered with.

4. From the combination of severe constitutional symptoms and extensive inflammation of the lungs.

5. From the existence of complications.

IV. What lesions do we find in those patients who have suffered from marked nervous symptoms, delirium, convulsions, and coma?

V. What is the condition of those patients who die suddenly?

I. In what condition do we find the inflamed lung? This question must be subdivided into three others.

1. In what stage of the inflammatory process do we find the lung?

2. How soon are the different stages developed?

3. How large a portion of the lungs is found to be hepatized in fatal cases?

To designate the different stages of the disease I employ the ordinary terms of red and gray hepatization, using the term mixed or mottled hepatization to characterize the condition of red hepatization passing into gray which is so often found. The term "suppurative hepatization" or "purulent infiltration" I do not employ, for I have never seen that condition. It is indeed common enough to see lungs in the condition of gray hepatization, which look to the naked eye as if infiltrated with pus, but a minute examination shows precisely the same condition as is found in other hepatized lungs.

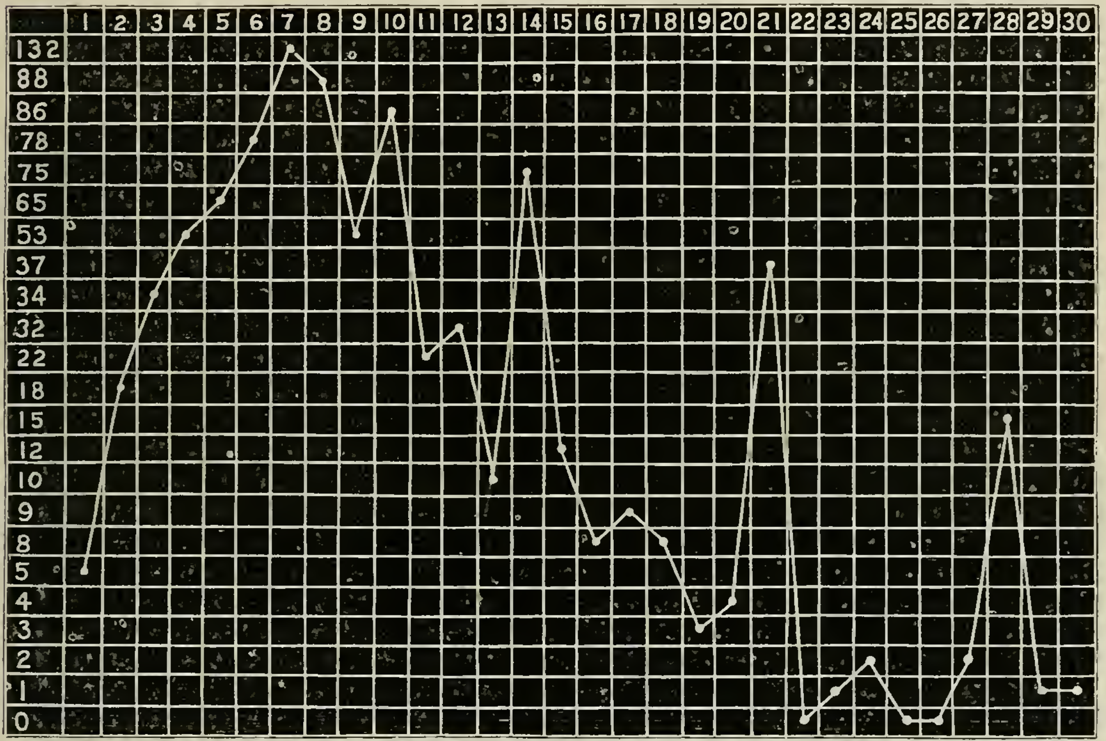

Fig. 5. 1873–1874.

1. During what stage of the disease does death occur? In the 122 cases mentioned, I found the lungs to be in the condition of red hepatization alone in 31 cases; in the condition of red and gray mottled hepatization in 59 cases; in the condition of complete gray hepatization in 26 cases; in the condition of hepatization which had passed into gangrene in 2 cases; while in 2 cases the hepatized lung was breaking down in circumscribed spots; and in 1 case the hepatization was becoming cheesy.

Nearly half the cases, therefore, died at the period when the lungs were passing from the condition of red hepatization into that of gray hepatization, while more than one-quarter of the entire number died while yet in the stage of red hepatization.

2. How soon after the chill which marks the commencement of the disease does the lung become fully hepatized? How long does it remain in the condition of red hepatization? How long in that of mixed hepatization? and how long in that of gray hepatization?

Of the 31 cases of death in the stage of red hepatization, the exact date of the disease could be fixed in only 10 cases. In these death occurred as follows: in 24 hours, 1 case; in 2 days, 1; in 4 days, 1; in 5 days, 2; in 6 days, 1; in 7 days, 1; in 8 days, 2; in 11 days, 1. It will be seen, therefore, that the lung may remain in the condition of red hepatization for as long a time as 11 days, and may be completely hepatized in 24 hours.

Of the 59 cases which died during the stage of mixed red and gray hepatization, the duration of the disease could be fixed in 25. In these death occurred as follows: in 2 days, 1; 4 days, 2; 6 days, 1; 7 days, 3; 8 days, 4; in 9 days, 5; in 10 days, 1; in 11 days, 2; in 12 days, 2; in 13 days, 2; in 14 days, 1; in 18 days, 1. The disease may, therefore, be passing from red into gray hepatization by the second day, and it may not have become completely gray by the eighteenth day.

Of the 26 cases which died with the lungs fully in the condition of gray hepatization, the duration of the disease could be fixed in 23. In these death occurred as follows: in 4 days, 1; in 5 days, 1; in 7 days, 3; in 8 days, 1; in 9 days, 1; in 10 days, 4; in 11 days, 1; in 12 days, 3; in 13 days, 1; in 14 days, 2; in 16 days, 1; in 23 days, 1; in 25 days, 1. Complete gray hepatization, therefore, was reached in one case by the fourth day, in most of the cases not till the seventh day, and in one case lasted 25 days.

Of the two cases in which gangrene of the lung had ensued, the disease had lasted 16 days and 25 days respectively. In one of these cases, the entire right lung was in the condition of gray hepatization, with a large gangrenous portion in its lower lobe. In the other case, the entire right lung was in the condition of mixed red and gray hepatization with a number of gangrenous spots in both the upper and lower lobes.

In the two cases in which there was breaking down of the lung tissues without gangrene, the disease had lasted 8 days and 9 days respectively. These cases merit a more particular notice. Both of the patients were adults, who had been drinking hard for a number of days before they were taken sick. In both of them the constitutional symptoms were marked. They seemed, therefore, to be one of necrosis of the lung tissue from its infiltration with fibrine, and not one of suppuration.

The case in which the hepatization was becoming cheesy was that of a woman twenty years old who had suffered from severe diarrhœa for five weeks. The duration of the pneumonia could not be fixed. She was much emaciated, delirious, and passed into the typhoid state. The entire right lung was hepatized. The upper lobe was of the appearance seen in the earlier stages of the cheesy hepatization of phthisis, of whitish yellow color, and of firm, dry consistence.

3. How large a portion of the lungs is involved in fatal cases? Of the 122 cases mentioned it was found that in 35 cases portions of both lungs were hepatized and in 25 of these cases not more than one lobe of one lung was left unsolidified.

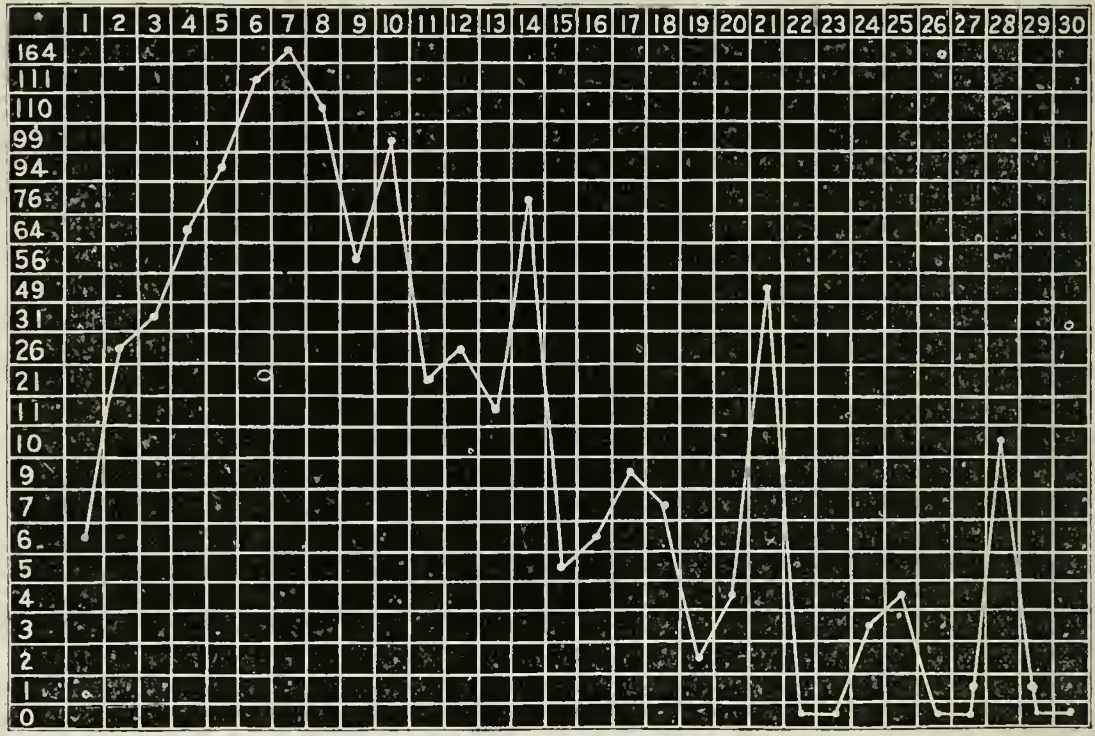

Fig. 6. 1874–1875.

became delirious, and died comatose. In one case only the right upper lobe was in the state of red hepatization, and in this were the softened portions. In the other case nearly the whole of both lungs was in the condition of mixed red and gray hepatization, and there were a number of large softened spots in the right upper lobe.

In both cases the condition of the lungs was peculiar. To the naked eye the appearance was that of breaking down of the lung tissue so as to form cavities in which were detached portions of lung. The edges of these cavities looked as if they were infiltrated with pus. This, however, was not the case. A minute examination showed that instead of more pus than usual there was less, and that the principal product of inflammation was fibrine. The process

In 32 cases one entire lung was hepatized, the right lung in 23 cases, the left in 9.

In 54 cases only one lobe was hepatized, in 24 cases the upper lobe alone, in 30 cases the lower lobe alone. Of these in the right lung the upper lobe alone was hepatized in 19 cases, the lower lobe alone in 24. In the left lung the upper lobe alone was hepatized in 5 cases, the lower in 9. Taking all the cases together, both lungs were involved in 35 cases, the right lung alone in 63, and the left alone in 23. It is to be noticed, however, that in some of the cases in which only one lobe of a lung is hepatized that this lobe may be so enlarged that the other lobe is compressed, unaerated and virtually useless.

II. What lesions do we find in the other viscera as complications? Of the entire 122 cases, in only 15 were there no lesions except the pneumonia. Of these 15 cases in 6 the pneumonia was double, in 6 cases it involved one entire lung, while in 3 cases only one lobe was involved. Of these 3 cases one was a man over eighty, and the other 2 had delirium tremens.

The complicating lesions which were found occurred as follows:

Œdema of the remaining part of the lungs in 28 cases.
Emphysema and chronic bronchitis in 21 cases.
Chronic phthisis in 2 cases.
Gangrene of the lung in 2 cases.
A large amount of purulent serum and fibrine in one or both pleural cavities in 16 cases.
Basilar meningitis in 2 cases.
Acute pericarditis in 12 cases.
Valvular disease of the heart in 6 cases.
The liver was fatty in 12 cases.
The liver was cirrhotic in 3 cases.
The liver was waxy in 1 case.
The kidneys were in the condition of chronic Bright's disease in 34 cases.
The kidneys were in the condition of parenchymatous degeneration secondary to the pneumonia in 25 cases.

It will be noticed that these complicating lesions were of so grave a nature, and were present so frequently, that they must have contributed largely to the fatal results of the pneumonia; and that in hospitals deaths from uncomplicated pneumonia are comparatively infrequent.

III. From what causes do these patients die?

(1.) From their inability to bear a small local inflammation. The following case affords a very simple example of this cause of death: A man, over 80 years old, after retiring to bed, was attacked at about 11 o'clock with severe pain in the epigastric region; at 7 o'clock the next morning the pain had shifted more to his right side; his breathing was accelerated; his temperature 101°, his pulse 100. There were no physical signs. At 12 o'clock the pain had disappeared, but there were still no physical signs. At 5 o'clock that afternoon there was well-marked crepitation over the right middle lobe in front. The face was becoming anxious, the pulse was feebler and more rapid. He continued in this condition, with rapid breathing, quick and feeble pulse; the feet and hands gradually became colder; the intelligence remained perfectly clear, until, at 11 o'clock, the rapid breathing grew first slower, then interrupted, and then stopped altogether. The autopsy showed red hepatization of the right middle lobe, and of the lower part of the upper lobe. The rest of the lungs and the other viscera were normal. In this case death seemed to take place simply because the vital forces were not sufficient to carry on life when subjected to the depressing influence of a local inflammation. There was plenty of healthy lung left for purposes of respiration; the temperature was not high; there were no secondary lesions or symptoms.

(2.) Death may take place from the constitutional disturbance when only a small portion of the lungs is involved. The following case will serve as an illustration:

A woman, æt. 32, had suffered from chronic bronchitis for five months. Twelve days before her death, after exposure to cold and wet, she was seized with several chills, followed by fever. On the second day she had pain in the left side and dyspnœa. On the 5th day she began to vomit, and after that time vomited everything she eat. On the 8th day she was admitted to the hospital; pulse 122, temperature 106°, respiration 42, tongue dry and brown; she had great dyspnœa, oppression, and pain in the side. On the 9th day pulse 107, temperature 103½°, respiration 35. On the 11th day pulse 160, temperature 105°, respiration 48. On the 12th day she died early in the morning. At the autopsy it was found that only the left upper lobe was hepatized, while the rest of the lungs showed the lesions of emphysema and chronic bronchitis.

(3.) So large a portion of the lungs may be hepatized that respiration is mechanically interfered with.

These cases will vary according to the manner in which the lung is invaded. In some cases a large portion of the lungs will be involved at once; in others, only a single lobe will be hepatized at first, and the disease does not extend until after several days; in others there is so much œdema and congestion of the unhepatized portions of lung that they are rendered useless for respiration.

The following case will serve as an illustration of the first method: A man, aged 21, was kicked overboard from a canal-boat into the river. On the second day after this accident he was attacked with chill, dyspnœa, and vomiting. Two days after this he died. His entire right lung was found to be in the condition of mottled red and gray hepatization, while there were numerous lobules of red hepatization in the left lung. This mechanical method of death seems to occur in a large number of cases. Of the 122 cases, in 35 a considerable portion of both lungs was hepatized, while in 28 there was marked congestion and œdema of the rest of the lungs, so that in more than half the cases death seemed to be due to interference with the functions of the lungs.

(4.) Death is caused by the combination of extensive inflammation of the lungs, and of constitutional symptoms. No matter how much of the lungs is inflamed the prognosis always depends much on the constitution of the patient, his capacity of enduring disease, and the degree to which he develops constitutional symptoms. A large number of the deaths is included in this group.

(5.) Death may be due to the existence of complications. These complications, usually in the heart, pleura, and kidneys, seem to destroy life rather by their effect in rendering the patient less able to bear the pneumonia than directly. For this reason they are frequently not discovered until after the patient's death.

IV. What lesions do we find in those patients who have suffered from marked nervous symptoms—delirium and convulsions?

(1.) Patients who died delirious.

In 30 of the 122 cases delirium was a marked symptom. In all of these cases but two, death did not occur till after the seventh day. In most of the cases the delirium did not appear until after they had been sick several days, but in two cases the invasion of the disease was attended with acute mania, which lasted until death. Eight of the patients had been drinking hard for some time before they were attacked with the pneumonia. In 23 of the cases either one entire lung (13), or portions of both lungs (10) were hepatized. Of the remaining seven cases all but one had been drinking hard before they were taken sick. The brain was examined in twenty of these cases. It was found normal in eleven, with acute meningitis in two, with basilar meningitis in one, with increase of serum beneath the pia mater in three, and congestion in three cases. In seven cases there was acute pericarditis; in eight cases there was chronic Bright's disease; in eleven cases the kidneys were in a condition of degeneration secondary to the pneumonia.

So far as these cases go, therefore, the patients who died delirious were those in whom a large portion of the lungs was involved. The only exceptions were those patients in whom the delirium seemed to be partly due to alcohol poisoning. The large number of these cases in which kidney disease and pericarditis coexisted is also noticeable.

(2.) Patients who died with convulsions.

In five cases the patients died with convulsions succeeded by coma. In four of these cases there was present chronic Bright's disease of long standing. In such cases the convulsions seem to be due to the disturbance caused by the pneumonia in a system already under the influence of kidney disease. In the other case the kidneys were in the condition of parenchymatous degeneration, and there was emphysema of the lungs. In one case the convulsions occurred on the second day of the disease, in the other cases not until near its termination.

In one case the pneumonia was double, in two cases involved an entire lung, and in two cases only one lobe.

The brain was in one case normal, in two cases there was an increase of serum beneath the pia mater, and in two cases it was not examined.

V. What is the condition of those patients who die suddenly?

This method of death occurred in twelve cases. Of these patients five appeared to die from dyspnœa, in three of these death occurred in a sudden exacerbation of the dyspnœa. In these five patients the disease had existed for fourteen, eight, and ten days respectively, in the other two cases the duration was not known. In four of these cases the brain was normal, in the other it was not examined. The lungs were found as follows:

In the first case the entire right lung was hepatized, the left lung was normal; in the second case portions of both lungs were hepatized, and the right pleura was half full of serum and fibrine; in the third case only the right lower lobe was hepatized, and the right pleura was half full of serum; in the fourth case the right lower lobe was hepatized, the right pleura half full of purulent serum, and there was emphysema and bronchitis of both lungs; in the fifth case the entire left lung was hepatized, while the right was normal. The heart was found as follows: In the first case normal; in the second case there was mitral stenosis; in the third case there were large vegetations on the mitral and tricuspid valves; in the fourth case the heart was normal; and in the fifth also normal. In all of the cases the kidneys were diseased. Only two of the five cases, therefore, were uncomplicated, and died in sudden attacks of dyspnœa, with one lung hepatized, the other lung normal, and no heart disease.

In the remaining seven cases of sudden death the patients died as follows:

Case I.—A man was sick for five weeks with symptoms of bronchitis and emphysema, and with constant vomiting. The exact way in which he died suddenly is not noted. One lung was hepatized; there was general emphysema and bronchitis: the kidneys were far advanced in Bright's disease; the heart and brain were normal.

Case II.—A man was attacked fourteen days before death with pain in the right side, diarrhœa, cough, dyspnœa, headache. He became delirious towards the close of the disease. He died suddenly without dyspnœa. Just before death his respiration was 38, pulse 104, temp. 102°. The entire right lung was hepatized; the entire left lung was congested and œdematous. The heart was normal, the brain congested, the kidneys diseased.

Case III.—A man, age unknown, the duration of the disease unknown, had the symptoms and physical signs of pneumonia. He died suddenly, the exact way is not noted. The left lower lobe was hepatized, the right lower lobe was œdematous and congested. There was acute pericarditis; the kidneys were normal; the brain was not examined.

Case IV.—A man. æt. 25, was attacked sixteen days before his death with chill, fever, pain in his side, cough and rusty sputa, nausea and vomiting. Towards the end of the disease he became delirious. He fell out of bed and died instantly. The left upper lobe was in gray hepatization, the lower lobe congested. Almost the entire right lung was in the condition of commencing red hepatization. The kidneys were in the condition of parenchymatous degeneration s the brain was not examined.

Case V.—A man, æt. 26, had been drinking hard for some time. Four days before his death he was attacked with chill, fever, cough, etc. He was doing very well, and was lying quietly and comfortably in his bed, when he suddenly died. Most of the left lung was hepatized; the right lung was congested; the kidneys were in the condition of chronic Bright's disease; the brain was not examined; the heart was normal.

Case VI.—A man. æt. 36, of intemperate habits, had been suffering for some time with the symptoms of cardiac disease, œdema, etc. A few days before his death he developed symptoms of pneumonia. He got out of bed to go to the water-closet, and fell dead on the floor. The right lower lobe was hepatized; the heart showed marked valvular disease, with dilatation of the ventricles: the kidneys were atrophied; the brain was not examined.

Case VII.—A man, æt. 29. of intemperate habits, was attacked seven days before death with chill, fever, etc. Towards the close of his life he developed symptoms of bronchitis; on the day of his death his pulse was 114, respiration 30, temperature $98\frac{3}{5}$°. He died suddenly in his bed, without any warning. The entire left lung was hepatized; the right lung showed emphysema and bronchitis; the brain was not examined; the other viscera were normal.

Of these seven cases in one there was marked organic disease of the heart, but in the other six cases the heart was normal. In these six cases the cause of the sudden death seems fairly to be referable to the lungs, for in four of them there was marked congestion. and œdema of the portion of lung left unhepatized, while in the other two cases there was emphysema and chronic bronchitis. It is not to be overlooked, however, that in four of these cases there was advanced Bright's disease, and in one case acute pericarditis.

In none of these cases of sudden death did the autopsy show that death was attributable to heart clot. Nor have I ever seen in an autopsy on a case of pneumonia any other clot in the heart than the ordinary coagulum which we find in persons dying from all diseases. It is well known that it is the rule to find, after death, in the cavities of the heart, especially the right cavities, coagula which vary in size, color, and consistence. Some are very large, and extend into the large vessels; some are soft. succulent, partly yellow and partly red; some are firmer and whiter; some are entangled in the trabeculæ of the heart's walls. These variations seem to follow no definite laws. In sudden deaths from accident or disease, in persons who have died from every variety of acute and chronic disorder, we find in the majority of cases these same clots, larger or smaller. redder or whiter. succulent or dry, but never resembling the real ante-mortem thrombi. Only in persons dying from any of the so-called septicæmic diseases the blood is often fluid after death, and no coagula are formed.

The assumption of the existence of heart clot in these cases seems to have its only foundation in the symptoms which may exist before death. The patients die suddenly, as if from syncope, from sudden stoppage of the heart's action. Just such sudden deaths apparently from syncope, however, are not infrequent in other cases. Patients who have suffered from chronic phthisis, from chronic Bright's disease, from pleurisy, with effusion of long standing, may all die in this instantaneous way, and in such cases we may find the heart empty, not even a post-mortem thrombus present.

In conclusion, I must remark that I am fully aware that these statistics are entirely insufficient for establishing any certain conclusions, but I trust that they may be of some value as a contribution to the history of pneumonia as it occurs in New York.

PROPHYLACTIC AND ABORTIVE TREATMENT OF EPIDEMIC PUERPERAL FEVER.

By J. H. MILLER, M.D.,

MOBERLY, MO.

During the winter of 1873 and '74 puerperal fever prevailed epidemically in this place with extreme virulence and with marked fatality.

I wish to detail briefly the treatment, prophylactic and abortive, which I adopted in my practice during the prevalence of the epidemic, and which resulted in complete success.

After the invasion of the epidemic, the very first case that fell under my care was attacked with puerperal fever on the second day of her confinement.

For thirty years my puerperal cases had run the gauntlet between the sanguinary treatment of Gordon, under the scholarly teachings of the elder Meigs, up to the full opium and veratrum treatment in vogue in more recent times, and of the success or futility of such treatment the profession have had the most conclusive *prima facie* evidence.

I should have been at sea with regard to treatment in this case except for the timely publication in The Medical Record of the clinical lecture of Dr. Fordyce Barker.

Although I did not adopt Dr. Barker's treatment in full, yet his invaluable suggestions saved my patient.

I placed her upon large doses of quinine (small doses being eminently nugatory), with bromide of potassium at short intervals, and as soon as the therapeutic powers of the remedies were established the disease began to yield. The interval between doses was then prolonged, but size of dose maintained. I also gave hypodermic injections of morph. sulp.

On the seventh day from the commencement of her attack she was free from all symptoms of disease, and made a very speedy recovery.

It is not the treatment of established cases, however, to which I wish to call the attention of the profession, but to the prophylactic and abortive treatment of epidemic puerperal fever.

Not unmindful of the trite adage, that "an ounce of prevention is worth a pound of cure," I determined to adopt a course of treatment that might possibly give to my patient some security against the results of this terrible disease. Recalling the antiseptic treatment of Mr. Lister, as a preventive against surgical fever, I concluded to employ it with such additions and modifications as circumstances might from time to time suggest.

Knowing from long experience that attention to little things frequently makes up the difference between failure and success, I will describe minutely the course pursued in nineteen cases that fell under my observation during the existence of the epidemic.

Upon entering the lying-in chamber and examining its hygienic condition, my first efforts are directed to the proper adjustment of the bed, in order to secure it from liability of being soiled by the discharges—cleanliness being regarded of primary importance. I direct two heavy comforts to be folded upon themselves and placed lengthwise upon the anterior part of the bed, and a sheet folded in the same manner upon the comforts. These will be sufficient to absorb the discharges before reaching the bed proper.

Before making a digital examination I wash my hands with soap and water, cleanse my nails thoroughly, and anoint both hands with carbolated oil, and as soon as the labor is completed I remove everything that is soiled and let her down upon a clean, dry bed. I place a large, folded napkin, carbolated, under the nates, to receive the lochia, and then proceed to anoint her abdomen and thighs with carbolated oil, and place a single cloth saturated with carbolated oil over the entire genital organs. I then order her a glass of whiskey-toddy. The carbolated oil was applied as above thrice daily for three days, and twice per day for two days more. It is both antiseptic and antipyretic. A generous diet was allowed throughout.

For the purpose of securing speedy uterine mural condensation, I order fld. ext. ergot in ʒ ss. doses thrice daily for the first three days, and twice daily for two days longer. I regard it of the utmost importance to have an early contraction and condensation of the uterine walls, in order to close the mouths of the uterine veins, for the liability to puerperal fever is to a great extent owing to the open, patulous condition of the mouths of the uterine vessels, allowing thereby easy ingress to the mycelium of the spores of microscopic fungi or to the shoals of the swarming bacteria, and thus invading and poisoning the whole uterine, peri-uterine, and peritoneal tissues. Secure by all means an early condensation of the uterine walls, and you thereby lessen the liability to puerperal fever in a ratio with the contraction of the calibre of the uterine veins; and with occasional washing the vagina with tepid water slightly carbolated, that condition of the puerperal state which is so inviting to the invading causes is so materially changed and protected as to render her security almost certain, and reduce the danger to zero.

Unremitting vigilance on the part of the physician is frequently the price of the patient's life. One visit every twenty-four hours is not safe practice. Three visits per day for the first three days, and two visits daily for two days more should be made in every case of labor during the epidemic.

The careful employment of the thermometer at each visit, in order to detect the brewing of the coming storm in advance of the more prodromic symptoms, lest they herald to the tardy physician the sad intelligence that he has come too late, is of the highest importance.

Perhaps without the use of these precautionary means those nineteen cases might have passed unscathed through all the fierceness of the epidemic, and, on the other hand, had it been practised more generally, the fatality of the epidemic might have been much more limited. It is only by more extended observation in this direction that we can arrive at just conclusions; for it is only by prophylactic and abortive means that we can expect to do our patients full justice, because in fully established cases the pathological lesions are too grave to be overcome in a large majority of instances.

Although always willing to accord to my professional brethren a full recognition of all their merits, I cannot avoid expressing upon this occasion the opinion that an impartial verdict would not hold some of them excusable for persistently ignoring the iconoclastic spirit of the last decade and a half, and who still regard calomel as their god and veratrum as their demigod, are yet sacrificing at the shrine of the traditional routinist.

Notwithstanding the propylactic means employed, four of the nineteen cases manifested unequivocal evidences of incipient puerperal fever; three upon the second day and one upon the beginning of the third day of their confinement.

The abortive treatment was brought into requisition at the very earliest manifestations of the disease, and with decisive effect.

Quinine is the remedy *par excellence* in the abortive treatment of puerperal fever. It neutralizes any toxic action from malaria already in the system; it diminishes pyrexia; it slows the pulse, prevents the formation of pus, and is inimical to the existence of bacteria. Ten grains every four hours I have found to be sufficient, although in one case I gave twenty grains to start with, and with the happiest results, and at the end of twenty-four hours in all four of the cases everything was pleasant and satisfactory. In addition to the above, although I have had no experience with them, I would recommend the use of salicylic acid, both locally and internally, and also the use of thymol. It is my candid conviction, that if these suggestions are implicitly carried out, epidemic puerperal fever will be disarmed of its terrors.

As a corollary to the above, I will formulate the chief points for practice.

1st. The most scrupulous cleanliness must be observed by all concerned.

2d. Unremitting vigilance on the part of the physician.

3d. The antiseptic treatment by carbolated oil, and by salicylic acid and by thymol.

4th. The early condensation of the uterine walls by means of ergot.

5th. The thrice daily employment of the thermometer.

6th. Large doses of quinine in the incipiency of the disease.

MOBERLY, MO., *July* 10, 1875.

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THE MOST UNKILLABLE MAN ON RECORD is said to be one described in the *Medical News*. He fell sheer two hundred and fifty-eight feet by actual measurement, and suffered concussion of the brain, broken ribs, fracture of a radius, and dislocation of a humerus downward and backward. About twenty-four hours after the accident all symptoms of concussion passed off, but an attack of pneumonia followed, from all of which, having made a good recovery, he is as well as ever.

TREATMENT OF CORPULENCE.—Dr. Lucca, Resident Physician at the Marienbad, Bohemia, claims to have astonishing results in the treatment of corpulence, by mixing two or three pounds of common carbonate of soda with a bath of Marienbad water, at a temperature of 60° to 70° Fahr.; one to be taken daily.

Progress of Medical Science.

A CASE OF DOG BITE.—Dr. Theodor Dreschke, of Dresden, reports the following case of lyssa humana. It concerned a boy twelve years old, who was bitten on May 26, 1874, by a rabid dog; the wound, which was on the upper lip, being so trivial as to be imperceptible on the following day. Nothing was noticed wrong about the boy until noon of August 12th, excepting some sluggishness of motion and irritability of temper for the preceding three weeks. At the time indicated he suddenly developed an inability to swallow liquids. The next day he was exceedingly restless, and his mind wandered. He was then brought into the hospital. The following morning he dipped a sponge in water, and washed his head and neck, but carefully avoided the mouth and nostrils. He was, however, totally unable to swallow a spoonful of coffee, the attempt causing the most violent spasms in the throat. It was noticed that the same effect was also produced when he was touched about the right nostril, though he was sensitive in no other situation. Early on this day he was in full possession of his senses, but he became wildly delirious late in the afternoon, and died about midnight after an hour's quiet. There were at no time any tonic convulsions or symptoms of paralysis. He had some food during the day; was given a steam bath in the afternoon, and two hypodermic injections of morphine. None of these remedies seemed to produce any effect. The autopsy was made ten hours after death by Dr. Birch-Hirschfeld. The brain was the seat of the most intense hyperæmia and injection, accompanied by great softening of the substance, features which were also marked in the spinal cord. The autopsical record, which is remarkably full, does not seem to show that there were any other lesions to which the symptoms might have been attributed, though it is said that there were four rows of narrow erosions of the mucous membrane of the posterior wall of the stomach. Besides the points to which we have called attention, it should be noticed that two other persons were bitten by the same dog on the same day. In both of these the wound was considerable, and bled freely. One had the wound cauterized three days after it was received; the other had the scar excised the day the boy was taken sick. Both of them are still perfectly well. —*Archiv der Heilkunde*, 16, iv.

EXPERIMENTAL INVESTIGATIONS INTO THE OCCURRENCE OF EXTRAVASATIONS OF BLOOD IN THE MUCOUS MEMBRANE OF THE STOMACH.—Schiff has shown that hemorrhages into the mucous membrane of the stomach take place after injuries affecting certain portions of the brain, notably the thalami and pedunculi cerebri. Following this lead, W. Ebstein has now found this same result from injuries of other parts, also of the central nervous system, viz.: of the anterior corpora quadrigemina and of the spinal cord down to the lumbar portion of it, diminishing, however, the lower down the injury has been inflicted. The same occurred also after continued irritation of sensitive nerves, after injury inflicted on the labyrinth of the ear, and after increase of the blood pressure. In this increase of blood pressure, in fact, as caused by the various experiments, Ebstein finds the explanation of all these hemorrhages. Obersteiner also remarks in noticing these experiments, that hemorrhages into the stomach, ecchymoses of its mucous membrane, and also ulcers of the stomach, are frequent accompaniments of various brain diseases, especially the acute ones.—*Rundschau*, May 25, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

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THE HOMŒOPATHIC HOSPITAL FOR NEW YORK.

THE homœopathic practitioners of this city and their friends have succeeded at last in obtaining a hospital. By reference to another column it will be seen that the Commissioners of Charities and Correction have set apart a portion of the Inebriate Asylum on Ward's Island for that purpose. It should be a matter of no small congratulation to such as are specially interested in the prosperity of the institution and the success of Hahnemannic practices, that, as a building, it is so admirably appointed. This is as it should be, and we are glad that the concessions have been made, to the end of giving our homœopathic friends what they have always contended they should have, a chance to practise their peculiar doctrines. In fact, we should allow them everything, rather than the opportunity of constantly croaking over their sufferings, their persecutions as martyrs to an opinion. There is nothing that strengthens any cause more than unreasonable opposition to what may even be its pretended claims; nothing which appeals to any notion of ordinary justice more effectually than intolerance of opposite opinions. Whatever may be the real claims of homœopathy as a practice, the foundation of the greater part of its apparent triumphs has been laid in our bitter and foolish opposition to its doctrines. At once the cry of persecution was raised, and it was by no means hard to convince the community that such persecution was not altogether unconnected with interested motives on our part. The sooner we can correct any such impression the better able will we be to combat error, on the common ground of reason and the broad platform of enlightened liberality. That we have made a serious blunder in not doing so before, is now quite apparent to all who are anxious that the community at large should place the proper estimate upon our abilities as practitioners of medicine. The homœopaths have never tired in charging us with persecution, illiberality, narrow-mindedness, and all those elements of character which are hardly complimentary to our reason, common sense, or ordinary discretion. They have said that we have used our influence against all efforts at progress on their part, and are particularly fond of exemplifying on their own behalf that truth and right will always prevail. In fact, they have almost entirely appropriated the familiar lines of Bryant bearing upon this point, and the community naturally expect us to clank our chains in applause of the sentiment.

Within the past few years the doctrine of the survival of the fittest has gained much ground, and its tenability has so forced itself upon the popular mind that it is perfectly safe to rest the issues of opinion upon it. In this view the establishment of a homœopathic hospital is a step which we have no reason for regretting, as being one of the means to the end, which must sooner or later come.

The difference of opinion concerning homœopathy has rested principally upon the *modus operandi* of medicines, and the peculiar treatment which the followers of this absolute system uphold. Now the way to exemplify the boasted brilliant results of their treatment is to satisfactorily settle many of the conditions which modify any system of medication. One of the most important of these conditions is a satisfactory diagnosis of the disease and its particular type of severity. This, it strikes us, would be the fair starting-point of comparison of results, for without it there would be no chance whatever for any just or reasonable conclusions. The existence of a disease, and the pathological lesions connected with it, are facts—self-evident propositions—which lie at the very foundation of all theories, and are the natural bases of all argument for their support.

It is claimed by the homœopaths that in matters of diagnosis and pathology we are their masters. If they are unwilling to take back their oft-repeated assertion, they should concede us the right of aiding them in their endeavors to start aright; in other words, they can lose nothing by allowing us the privilege of making a diagnosis for them, and verifying its correctness by autopsical examination, in case their treatment should ever result disastrously to the patient. Under the government of the same board that manages Bellevue and Charity Hospitals a very satisfactory arrangement can be made to accomplish the purpose. Indeed, we understand that a plan having such an end in view is already under contemplation by the Commissioners of Charities and Correction, and if it be consistently, conscientiously, and honestly carried out, the establishment of the homœopathic hospital may be the beginning of the end of a controversy which has lasted altogether too long, and which has so seriously damaged true progress in medicine. We believe with the homœopaths that there is but one God in medicine; but it is not quite clear to us that Hahnemann is his prophet. Let us, however, in the spirit of humility patiently listen to what they claim to be their infallible argument.

THE SMALL-FEE SYSTEM.

OUR correspondent who signs himself "A Country Practitioner," in commenting upon the small-fee system, writes a very interesting and suggestive letter. There is no doubting the fact that there is much abuse of medical charity, by not only a wilful neglect to receive small fees, but what is infinitely worse, placing a premium upon dishonest practices. We are constantly hearing complaints from practitioners, in the vicinity of the city, against the questionable means which the different college clinics have of securing interesting cases. It is time that this evil should be remedied by those who have it in their power to do so. There are enough needy patients who could be used for purposes of clinical demonstration, and, generally speaking, if sufficient care was exercised, there would be no difficulty in sifting out the unworthy ones. Mistakes may be made now and then, but there is no reason why they should be so frequent. The enthusiasm for a given college is well enough, but no one but the professor himself would excuse the outrage of actually stealing a patient on such a plea.

Reviews and Notices of Books.

ELEMENTS OF EMBRYOLOGY. By M. FOSTER, M.A., M.D., F.R.S., Fellow and Prælector in Physiology, Cambridge, and FRANCIS M. BALFOUR, B.A., Fellow of Trinity College, Cambridge. London: Macmillan & Co. 1874.

MR. FOSTER'S share in the *Hand-Book of the Physiological Laboratory*, prepared by the joint labors of himself, Drs. Burdon Sanderson, Klein, and T. Lauder Brunton, is a sufficient guarantee for the practical efficiency and thoroughness of this new volume. Like the hand-book, this is less a treatise than a manual, intended to initiate the student into the personal observation of the elementary facts of embryology; and all thorough helps to such initiation are invaluable, both to those who wish to learn, and to those who wish to acquire the reputation of knowledge by the facile process of reading about what others know.

The present volume of the "Elements" is limited to the study of the chick's embryo, during the first six days of development. This study is intended to be an introduction to the general facts of vertebrate embryology, for which the hen's egg is selected on account of the practical advantages which long ago commended it to Aristotle, to Harvey, "on account of its great cheapness, which puts it in every man's possession;" to Haller, wherewith to prove the doctrine of evolution; to Wolff, in order to overthrow evolution by epigenesis, and to Von Baer, as furnishing material for the entire development history (*Entwickelungsgeschichte*) of animal life.

Mr. Foster declares of Von Baer that "he found the true line of inquiry already marked out by Wolff, and followed it so sedulously, and with such success, that nearly all the work which has been done since his day up to the present time in vertebrate embryology may be regarded as little more than an extension, with corrections, of his observations." Wolff, in the *Theoria Generationis*, published 1759, laid the foundations of modern embryology, and even of modern histology, when he disproved Haller's theory of evolution by showing that the cicatricula of the hen's egg consisted of cells, and that no embryo appeared in it until after fecundation. The next great epoch consisted in the discovery by Purkinje of the germinal vesicle in the fowl's ovum (1825), and this led to the third (according to Foster the last), namely, Von Baer's discovery of the mammalian ovum in 1827, which first rendered possible a consistent view of mammalian generation.

The study of invertebrate embryology, however, has during the last few years produced the most striking results, and to its main facts, and to the discussion of general morphological considerations, will be devoted the third part of Mr. Foster's "Elements." In the second part will be considered the embryonic histories of other vertebrates, in so far as these differ from that of the bird, and also the development of special organs.

The first part contains, in an appendix of twenty-eight pages, minute practical instructions for studying the development of the chick. These comprise descriptions of incubators and their management; method of opening the egg after eighty-six hours' incubation (period recommended as most suitable for the first studies of a beginner); examination of the blastoderm *in situ* with the naked eye or with a lens; removal of the embryo, and preparations for observation at a low power of the microscope; details of the surface view of the transparent embryo, as seen from above and below; and examination of the embryo as an opaque object. Then follow directions for preparing sections, with methods for hardening, staining, and imbedding. Analogous indications are given for the examination of an embryo at forty-eight hours, on the fourth day—at twenty hours—finally of the incubated blastoderm.

The main part of the book, however, is occupied with a didactic description of the successive changes that may be detected by the foregoing manipulations. Such descriptions, detailed from day to day, read like the first chapter of the book of Genesis, with the additional marvel of being both true and verifiable by one's own eyes. On the first day the blastoderm is divided into three layers—the epiblast, mesoblast, and hypoblast, or the serous, mucous, and intermediate layers, as they were formerly called. The primitive streak is formed by a thickening of the mesoblast, the primitive groove along its centre, the medullary groove in front, while below the latter the notochord is formed out of mesoblastic cells. The primitive groove, supposed by earlier observers to be converted into the medullary canal, is now known to disappear without apparently fulfilling any function whatever. "We can only suppose that it is the rudiment of some ancestral feature." The rudiments of the vertebral column appear in the first day, where one or more pair of protovertebræ rise on each side of the notochord (chorda dorsalis.*) The mesoblast is split in two; the upper half unites with the epiblast to form the somatopleure, destined to generate the external part of the body; the lower half unites with the hypoblast for the formation of the viscera. Between the two lies the great pleuro-peritoneal cavity. This cleavage was described by Von Baer as a process by which the different layers of the embryo were transformed into a series of concentric tubes, or fundamental organs. The innermost of these is the mucous membrane; the next the vascular layer of the abdomen. "Finally, an outer animal or flesh layer (*Fleischschicht*), which forms a posterior tube,—the vertebral column surrounding the nerve-tube, and an abdominal tube inclosing the two first named."*

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* See Robin. Mémoire sur l'Evolution de la Notochorde. 1868.

Finally, on the first day of development in the chick, appears the headfold and first trace of the amnion, and the vascular area begins to be distinguished from the rest of the opaque area.

On the second day the medullary folds close around the medullary groove, and form the neural canal; the head is elevated above the plane of the blastoderm; the heart and great blood-vessels are formed, and the rudiment of the Wolffian duct. This during the first half of the day. During the second half the second and third cerebral vesicles appear, as also the optic vesicles and vesicles of the cerebral hemispheres, both head and tail are more definitely formed, and the amnion grows rapidly.

On the third day new viscera appear; the foregut is divided into œsophagus, stomach, and duodenum; the latter into large intestine and cloaca; the lungs bud out as diverticula from the alimentary canal; the liver and pancreas as diverticula from the duodenum. The cranial nerves appear, not continuous with the cerebral vesicles, but developed independently in the mesoblast. The four visceral clefts—of which the upper one becomes the mouth, while the lower are ultimately obliterated—appear between the five visceral folds. Of these the upper one divides into the superior and inferior maxillæ, the second develops to the hyoid bone, the remaining three become the temporary branchial arches.

The most important event on the fourth day is the development of the genito-urinary system from the Wolffian duct and body, which had existed alone from the second day. The generative glands in both sexes arise from the inner border of the Wolffian body, on a ridge consisting of cylindrical epithelium, derived from the hypoblast of the splanchino pleure, or the abdominal cavity, or nutritive epithelium of the ovary. Among the mass of epithelial cells some are larger than the rest, and become the primordial ova. These exist up to the eightieth hour, in the male as well as the female embryo, then the first differentiation of sexes takes place, by an arrest of development of this epithelium in the males, while in the females it becomes more and more prominent, and grows to the Graafian vesicles. In the females, also, the oviduct is derived from the duct of Muller, which is developed on the outer border of the Wolffian body by an involution of the germinal epithelium from the pleuro-peritoneal cavity. The vas deferens, on the other hand, the masculine analogue of the oviduct, is the excretory duct of the Wolffian body, which persists in the male and atrophies in the female. The kidney, like the Wolffian body, makes its first appearance on each side as a duct, given off as a diverticulum from the Wolffian duct, about the eightieth hour, or coincidently with the differentiation of the sexes. This duct, the permanent ureter, again gives off numerous diverticula from its upper end, which, lengthening and becoming twisted, form the tubuli uriniferi, around which the mesoblast condenses into the malpighian bodies. In this account of the primitive development of the genito-urinary apparatus Foster entirely agrees with Waldeyer. These, as all modern researches, entirely disprove the opinion, so prevalent a few years ago, that the female organism represents an earlier, more immature type than the male. It is evident, on the contrary, that there are no successive stages of development by which the one sex passes into the other, but that both are evolved by equivalent differentiations from a common neutral sexual organization.

The other most important event of the fourth day is the projection of the allantois from the pleuro-peritoneal cavity. The allantois is to be regarded as a portion of the cloaca, but on the fifth day, when it grows very rapidly, it is to be considered as chief organ of respiration. On the fifth day limbs grow, and wings become distinguished from feet, the knee and elbow joints appear, and cartilaginous rods in the visceral folds, also in the limbs. The digestive canal is developed by the formation of the anus; the spinal cord acquires a large development of gray matter in the cornua, and the white columns grow; while in the vascular system the most important epoch in the history of the heart occurs. The ventricular septum is complete, the auricular septum appears, the bulbus arteriosus is also divided, and the semilunar valves are formed.

Finally, the sixth day marks a new epoch in the general development of the chick, for then are first seen distinctly avian characters. Then for the first time become visible the main features of the characteristic manus and pes; the crop and intestinal cæca: the stomach takes on the form of a gizzard, the nose begins to develop into a beak, and the commencing bones of the skull to arrange themselves after an avian type. On the sixth day Von Baer observed movements of the limbs, and on the seventh Vulpian discovered rhythmical pulsations of the amnion, which he ascribed to rhythmical waves of nutrition.*

The remaining history of the chick's intra-ovular existence is more briefly sketched. Since facts and theories of development to-day influence every department of human thought, and of none more than the sciences pursued by the physician, practical acquaintance with the elements of embryology and methods of embryological research becomes of constantly increasing importance. Hence the great value of a volume like the one whose contents we have so briefly indicated, which not only guides the beginner, but by the discussions of controverted points inducts him gradually into the central regions of high and most modern science.

MANUAL OF HYGIENE. By CHARLES H. CAMERON, Ph.D., M.D. Dublin: Hodges, Foster & Co. London: Baillière, Tindall & Cox. Nov., 1874.

THIS manual is among the recent valuable contributions to sanitary science. It is an attempt to furnish such a guide and such information as will be of service to health officers, and also aid those who are engaged in direct scientific investigation. The book, both in its commencement and its appendix, gives us an idea of the progress of health legislation in the United Kingdom. Its opening sentence informs us that "the Public Health Act of 1874 has created a permanent army of sanitarians for Ireland." Further on we are told that every part of the United Kingdom is now provided with health officers. Nearly one-third of the volume consists of a collection of thirty-four sanitary statutes applicable to Ireland. These include most of the subjects which come under the surveillance of sanitary law, and are well worthy of the examination of framers of health codes.

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* Entwickelungsgeschichte der Thiere, p. 165.

* Journal de Brown-Séquard, Vol. I.

The author in his introduction plainly comprehends the sphere and extent of sanitary science. He well remarks that physicians mistake in assuming themselves to be sanitarians because of their profession. There is need to acquire more of the knowledge of the physicist and the political economist than belongs to a study of the treatment of disease. The second chapter treats of the duties of health officers. The importance of house-to-house inspection is wisely brought into prominence. In Chapter III., on nuisances, the author specifies overcrowding, privies and ash-pits, cellars, housed animals, manure, black smoke, effluvia from factories, and steam whistles. The list is not very complete, but valuable suggestions are offered. The next chapter, on vital statistics, illustrates anew how vital is the study of this department, and how imperfect it still remains. We need to study not only death rate, but sickness rate and birth rate. There are many insidious sources of error to be eliminated in our calculations. The real expectation of life is often quite different from the tables. Approximate figures often have very little of pure mathematics in them, and the balancing of errors does not furnish exact results. We confess ourselves unable to accept many of the conclusions of statists, because objecting to their mode of averaging.

On the question of marriage between relatives, Dr. Mitchell, of Edinburgh, is quoted, and the danger stated to be in the increased risk from such marriages "of the transmission of abnormal peculiarities." It is well to remember that if a perfect son and daughter of Adam and Eve had been joined in wedlock and had begotten children, they were quite as likely to be perfect as their parents. The mere fact of the same blood is not contaminating or deteriorating, except as similar and real defects are multiplied, and these, like family traits, are apt to be similar in relations. The whole subject of heredity will bear restudying in the light of new physiological research.

From Chapter V. to IX. we have a presentation of facts as to water supply. Directions are given with exactness as to the tests for water and its filtering. A chapter on water as a carrier of disease gives many instances to show its agency in this regard. Chapters X to XIII. treat chiefly of air and heat in their relations to health. As usual, there are some indefinite suppositions as to ozone in its bearing on epidemics. The author states that it is "used up in the open country in destroying the organic matters which are so abundant in such situations." The only evidence of this adduced is that where there is much organic matter in decay there is generally not much ozone. The test of carbonic acid in air by baryta water is commended for its simplicity. But it must be remembered that too much significance must not be given to the presence of carbonic acid as the full test of impurity. The more deleterious organic ingredients of foul air are not always in proportion to the carbonic acid. The author well remarks that headache and other pains which we suffer from ill-ventilated places are nearly altogether owing to the organic matter, and not to the carbonic acid of the vitiated air. The nitrogenous organic matter is so insinuating that filtration through cotton wool does not remove it.

In the chapter on Heat it is recommended that air from a furnace should never be admitted to rooms. For the introduction of fresh air to a room, Gauger's plan is approved, which is to have an air-chamber back of the fireplace and flue, communicating on one side with the atmosphere, and on the other with the room. The air is thus heated and delivered fresh and warm into the apartment. The amount of oxygen abstracted from the air by lights and fires is alluded to, also the importance of avoiding red heat and dampers.

The relation of the ground to health is well discussed in Chapter XIII. It is important to recognize the different capacities of different soils as to moisture and as to the disposal of the varied products of decay. Air beneath ground is richer in carbonic acid than the atmosphere, and may contain offensive gases. "A strong wind playing upon the surface of the ground outside a house has been known to force the gases contained in the ground into adjacent houses."

The introduction to the chapter on contagion makes us feel more than ever how, as a profession, we need to come to a more definite understanding in the use of such words as contagion, infection, etc. Our author says these words are used indifferently, and mean "catching," while Dr. Erskine, in his excellent report on yellow fever in Memphis (*Public Health*, Vol. I.), says yellow fever "is not contagious, but its fearfully infectious character is beyond dispute." The author gives some important thoughts as to microzymes in their relation to disease, and wisely regards the germ theory in reference to zymotic diseases as still *sub judice*. The chapter on vaccination affords new proof that we still have a wide field for study and observation in this department. The recent outbreak in Ireland, after variola was supposed about banished, shows how eternal vigilance is the price of liberty. The impossibility of transmitting other diseases through vaccine virus is strongly stated. The chapter on disinfectants and deodorants is one of the best, not because it introduces to us new antiseptics, but as fairly presenting the basis of their use, and the results of the careful experiments of Dougall, Calvert, Plugge, etc. The hot-air disinfecting chamber which the corporation of Dublin provides for disinfecting clothing and bedding is a valuable arrangement. It is important for the unwashed woollen clothing worn by laborers as well as for that infected by disease, and the expense of use is small.

The chapter on the spread of disease and how to prevent it has many facts pointing to the specific character of contagions. We should like to know on what authority the author says, "It is probable that attacks of such comparatively mild zymotics as measles may help to render persons somewhat less susceptible to the poison of all the contagious maladies." If there is respectable evidence of this we should be glad to have it. If not, we object to mere guesses from eminently respectable authors, lest their random hypotheses be quoted as verities from the respectability of the source. We need some facts or scientific probabilities to support such suggestions. Hospital Ventilation is well treated, and the chapter well summed up by the remark of Simon that "what makes the healthiest house makes likewise the healthiest hospital." A chapter on school hygiene draws timely attention to the evils resulting from imperfect school methods and arrangements. Both Chadwick and Virchow have given us able treatises on this subject. The sewage question is quite fully discussed. The author gives in his adhesion to the water system as best adapted to dealing with human excrement.

The question of utilizing sewage is discussed at some length, but properly held in abeyance to the best methods of securing its removal in the interests of health. It is a good remark that "excrement may be removed from towns, and safely disposed of on more than one principle, and the same principle does not need to be applied in all quarters of the same town."

The effect of occupation upon health is discussed in two chapters.

Exercise, bathing, and clothing are discussed with the usual amount of good advice.

The mind, like the body, it is said, can be underworked as well as overworked. We think this view of mental hygiene needs to be considered in its bearing upon some classes.

We have great respect for Sir Alfred Power, because he seems to have done much for the relief of the poor and the improvement of the public health, but we trust his poetical effusions will not be numerous.

The chapter on foods is full of well-considered suggestions and facts. We must except the strange advice of page 274, where rusk-panada, weak beef-tea, and chicken broth are recommended for healthy children, after two or three months. This is too early to depart from the special indications of maternity. The chapters on diseased food and on adulterations of foods and drinks, draws attention to most of the modes of detection and give valuable caution. While there is not very much new matter in the book, the old is well collected and arranged, and the author evidently has high claims as a practical sanitarian. It is what it seeks to be, a manual, and deserves to take a place among the valuable aids to sanitary science, and as a guide in sanitary legislation.

THE NATURE AND TREATMENT OF VENEREAL DISEASES. By ROBERT A. GUNN. New York: A. K. Butts & Co. 1875.

THE reader of this book will undoubtedly be struck with the fact that while upon the title-page the author speaks of venereal diseases, in the body of the volume he considers that there is but one venereal disease. The present work affords a poor example of a man stultifying himself to the results of modern careful and convincing research, and of maintaining views which have been scientifically proved to be incorrect years ago. We shall not go into the author's reasons for his peculiar opinions, as such a course would require a discussion of a question which has long been settled, and, we think, forever. The author evidently is influenced by the results of a small field of observation, and as it is to be feared that he is lacking in the knowledge of certain facts relating to the true virus of syphilis and of the pus of chancroid, he forms the opinion he entertains, the truth being that if the very cases which have convinced him were examined and explained according to well-known facts in syphilology, they would be powerfully convincing of the errors of the construction placed upon them by Gunn. We should strongly advise the author, if he ever has the happiness of bringing out a second edition, to study more carefully the features of both hard and soft chancre, and to examine into the doctrinal points as to the origin of chancroidal pus, as well as the results of the numerous experiments which have been made with it. The author's descriptions of the various lesions of syphilis betray a want of large familiarity with them, so that, even if based upon the words of classical writers, they have suffered in the translation. In keeping with other parts of the work, the chapter relating to the treatment of syphilis is disappointing. The vegetable remedies advocated have long been tried and found wanting, and the author's arguments against mercury are not his own, nor are they convincing. It were better that such books were not written. for it is questionable whether the stock used in getting them out would not have done more good in the rough.

OZENA AND ITS TREATMENT. DE L'OZÉNE ET DE SON TRAITEMENT. By A. D'AZAMBUJA. Paris: Delahaye. 1875.

THIS affection, often one of the most inveterate, is, strange to say, not very often made the subject of study and didactic treatise. The present author has evidently devoted much time and thought upon its clinical history, and his descriptions being good, he has produced a very acceptable brochure. He considers first the nature of the complaint as a symptom, its diagnostic points, and finally its treatment. He thinks that chronic fetid coryzas or coryzæ should be divided into: 1st, the simple non-ulcerous coryza; 2d, the ulcerous form; 3d, the necrotic; and 4th, the caseous.

Each of these are well described and illustrated by cases. As to the simple form, he, like most French writers, thinks that it is a manifestation of an herpetic or dartrous diathesis. Azambuja's remarks upon diagnosis are very pertinent; indeed, considering how little this subject has been studied, they may be pronounced *clever*. He thinks that in a given case the attendant should try to ascertain: 1st, is there an ulceration? 2d, what is its depth? and 3d, what is the nature of it? Each of these questions is carefully considered, and the text offers some important suggestions. In the matter of treatment, the author goes over the usefulness of many remedies and modes of procedure, and. while he gives a fair résumé of our knowledge, makes some good points. He makes a digest of his book in seven aphorisms. They are as follows:

1. Ozena is a chronic fetid coryza; in other words, to be a coryza there must be chronic inflammation of the pituitary membrane or of the subjacent tissues, and a fetid condition of the breath.
2. It is almost always of scrofulous or syphilitic nature; rarely it exists without known cause, resulting from traumatism. the presence of foreign bodies or calculi in the nasal passages, or arising from destructive lesions, happening as a complication during the decline or in convalescence of adynamic fevers. More rarely still, it is an evidence of herpetism.
3. There is a simple, non-ulcerating ozena, and a fetid coryza without ulceration. The latter shows itself in two forms, the moist and the dry. It is the result of scrofula, and it is very doubtful whether syphilis plays a part in its causation.
4. There is an ulcerating ozena without osseous lesions, caused either by scrofula or syphilis. The ulcerations of scrofula invade the superficial structures and then the deep, being more irregular than those of syphilis. Syphilitic ulcers are caused by two different processes; first, by symptoms similar to those of the skin; second, by the softening of the gummata.
5. The most serious form of ozena is that which begins in the bones—the necrotic form—and is more frequently due to syphilis than to scrofula.
6. Ozena always accompanies the affection described as caseous coryza.
7. The treatment is both local and constitutional, the latter being required in syphilis and scrofula. The best method of local treatment consists, 1st, in douches and irrigations; 2d, in direct cauterization of the ulcerations.

The author refers to a method of reaching the nasal cavities, devised by Rouge, of Lausanne, which, while it gives good results, has numerous drawbacks, and is sometimes followed by death. It consists in incising the gingivo-labial angle. Separating the soft parts of the nose, and throwing them back, the fossæ are reached. The parts are afterwards replaced without deformity.

Correspondence.

THE SMALL-FEE SYSTEM.

To the Editor of The Medical Record.

Sir:—Your editorial on "The Small-Fee System," recently published in The Medical Record, touches a number of points which cannot fail to interest many professional brethren who have been waiting for some one to present an old case in a new aspect.

I have long been in the habit of receiving small fees from many of my patients, I being in the capacity to them of a physician to a sort of protective union, or, more properly, the medical attendant of a factory in which these people are employed. Many of these employés have left the mill, and in other callings have still continued to employ me as their physician under what you please to call the "small-fee system." I doubt not that there are not a few medical men who, while they may openly condemn the "small-fee system," secretly take advantage of its benefits.

The difficulty with each physician is to decide who may be the ones in his practice who may be entitled to the benefits of the new system, the object being to aid the honest man in discharging what he believes to be a debt of obligation. Too great care cannot, in my opinion, be taken to guard against the deception of the so-called professional frauds. But each medical man must make his own standard in this matter, and be willing to draw his own line of distinction.

The bad influence which small fees may have upon the abuse of medical charities is, I think, very much overrated. One fails to see how it can possibly affect a poor but honest patient in any other way than for good. He is made to feel more or less free from pecuniary dependence, and is the farthest possible removed from the person who glories in cheating the doctor. Altogether, it is one of the best ways to prevent this professional pauperism which has been fostered by the high-toned sentiment against small fees, and by the determination to take large fees or none at all. If you make a patient believe in such a doctrine, make him think that when he cannot pay the standard fee that he is entitled to any of our services free of expense, then you spoil him for all time, and he either feels insulted at any reasonable bill, or he goes to the dispensary or college clinique, to eke out a shameful pauperism.

While speaking of the evils of dispensaries, college cliniques, and the like, it is not fair to make the would-be pauper-patient bear their whole weight. If medical men in charge of these institutions did not encourage the practice, there would be no need for this outcry against the abuse of medical charities. As you have on previous occasions very truly said, the leading men and medical teachers have placed such a premium upon medical pauperism that it is now almost next to impossible to stem the tide of the abuse of our medical charity. There is not one bit of exaggeration about this.

I was much struck, not long since, by a communication from a rural practitioner, who complained that a good-paying patient of his went to one of the New York college cliniques, and was operated upon for nothing, and without question, by one of the leading practitioners in your large city. When I was a student I knew this to have been done repeatedly. One of the wealthiest men in my section of country, at the time a patient of my preceptor, went to the city for the purpose of seeing an eminent surgeon, and having lithotomy performed. I give him the credit to state that he (the patient) went with the best of intentions, but some how or other he learned that he could have the operation performed for nothing at one of the colleges. I well recollect with what a chuckle of satisfaction he told me of the arrangements for the said operation, and how it pleased his miserly soul to call himself a fool for paying for a thing which "these great men in New York seem so glad to give for nothing." "Why," said he, "I have no doubt they would pay me for letting them do it, rather than cheat the young doctors out of a little show." The operator was informed of this fact; but he told me that, after all, the operation would do more good to the college than to the patient, and so it was done—done, when the patient could well afford to pay five hundred dollars for it, and would have been performed by my preceptor, only he wished to give the patient the best possible chance of extended consultation in the city, because he was well able to pay for it. This is an instance of what I call putting a premium on professional frauds. It is from these seats of learning that we get all our ideas of professional ethics, and we hear from their professors that if a man does rightly, he will be sure to succeed; that we should never cheat each other out of practice; and yet these very leaders of professional thought do the very thing above all others which has a tendency to take the very bread out of the mouth of the young medical man, who has a need for every crumb.

A parallel instance occurred to me after I had graduated and had settled for a time in New York. I had a case of popliteal aneurism in a comparatively well-to-do mechanic. I agreed to operate upon the same by ligature of the femoral. The patient agreed to pay me fifty dollars for it. While I was getting ready to perform the operation, the man had, some way or other, drifted into one of the college cliniques. The case was an interesting one, and the surgeon marked the man at once. Of my personal knowledge, this surgeon afterwards drove to the house of my patient, and not only solicited him to come to the college to have the operation performed, but actually promised him a place in a hospital afterwards, where his board and attendance should be free during his convalescence. My patient could not resist the plaintive appeal, and I lost him. I certainly could not blame him; for here was I, a youngster, on the one hand, who wanted fifty dollars as much as I ever did in my life, and who was to perform the operation because that fifty dollars was one of the prime inducements; while, on the other hand, there was an eminent professor and expert, who had a very large experience, and who not only promised to do the operation for nothing, but virtually pay the man's board besides.

These are matters which have come under my professional knowledge, but I have heard of others which are even worse. I have been informed by a trustworthy gentleman that he knew of a patient who was "well off," and was actually paid in money by a professor who wanted to perform lithotomy upon him before a college class, and that the patient accepted the money as a *quid pro quo*. The circumstance at the time was made quite public, from the fact that a rival medical college, which was also anxious to get hold of the patient, hearing that twenty-five dollars had been offered to the "man with the stone," promised to give him "fifty dollars" if he would be cut at their college. From some strange reason the man very disinterestedly stuck to his original contract.

I admit that these are extreme cases; but we have similar ones, though less in degree, that are constantly crowding our college cliniques and dispensaries, and that do so because many men send them there rather than take a small fee, a fee which the patient would esteem it a privilege to pay.

Now, it strikes me as preposterous to assume that because services cannot command so much, that they are worth nothing. This would be a strange law to apply to trade, and yet the poorest of all trades—the practice of medicine—acknowledge it as a leading principle. I have never heard of a business-man giving away his goods because he could not get a fixed price for them. Somehow or other these men strike a cash balance between what they ought to have, and what they can get, and in the end become rich. The doctor, on the other hand, places himself above the petty consideration of cash compromises, and generally dies a poor man. I for one do not think that this false pride, this unbending dignity in regard to standard fees, this refusal to take smaller ones when we cannot do better, pays in the long run.

A Country Practitioner.

A PROPHYLACTIC FOR SORE NIPPLES.

To the Editor of The Medical Record.

Sir:—The curative as well as the palliative treatment of sore or cracked nipples being well known to be futile, my aim for a long time was directed to the finding of a *reliable prophylactic*. After trying a good many formulas of others, and combinations of myself, I came at last to the use of "*tannate of lead*," the "cataplasma ad decupitum" of the Pharmacopœia Germanica, with the addition a little glycerine to modify, in some degree, the excessive drying properties of that preparation. This "*plumbum tannicum pultiforme*" I had applied, for about one month before parturition, two or three times a day, directly to the nipples. This, I found, "TANNED" the nipples in so thorough a manner that they were perfectly able to withstand all suckling and all pulling on the part of the infant successfully. At the same time I use a piece of *cotton felt*, about one and a half inches in diameter, and half an inch in thickness, with an aperture in the middle large enough to give free access to the nipple. This will not only prevent the pressure of the garments on the nipples, but will give, at the same time, to the nipples a chance to develop themselves better, which is often so much needed.

Julius Fehr, M.D.

Hoboken, N. J., *June 5th*, 1875.

ACID TANNATE OF IRON IN DIPHTHERIA.

Editor of The Medical Record.

Some time in August last my attention was directed to an article in the *Physician and Pharmacist*, by Dr. J. A. Hopkins, of Milton, Del., regarding the local use of the acid tannate of iron in diphtheria. Though the disease has not been very prevalent throughout my immediate neighborhood since, my experience with the substance in some six cases has been so favorable as to induce me to second the Doctor in calling the attention of the profession to it as a valuable therapeutic agent. In one case especially, an effect was produced which may be of interest. The patient being a docile, quiet girl, whose tonsils were completely covered with the diphtheritic deposit, I introduced the point of a bistoury, and gave a little slit, by means of which I was enabled to detach and hold up a portion of pseudomembrane, about a line in thickness, and having the appearance of "dirty wash-leather." On applying the acid tannate, a rapid apparent coagulation took place, the membrane shrinking from the incision towards the periphery. Nor was it afterwards reproduced to any great extent. In the other cases no such striking result was obtained, but the local disease would appear to be modified, the influence of the agent being attested by the at first blackened and afterwards brownish color of the deposit. Exfoliation generally began in the course of a few hours, in the form of hardened patches coughed up and expectorated occasionally. The method of application which I found best, was to first apply thoroughly the "tr. ferri chl.," followed immediately by a strong solution of tannic acid; thus allowing the chemical reaction to take place upon the diseased portion. An application once in the twenty-four hours is, I think, sufficient, due attention being, of course, paid to tonic and stimulating remedies, with disinfectant solution and nourishment.

H. B. Whitehorne, M.D.

Verona, Essex Co., N. J.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from August 8th, 1875, to August 14th, 1875.

Bache, Dallas, Surgeon.—Leave of absence extended one month. S. O. 45, Head-Quarters of the Army, August 10, 1875.

Forwood, W. H., Asst. Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 155, Department of Texas, August 6, 1875.

Kimball, J. P., Asst. Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 147, Department of Dakota, August 3, 1875.

Maus, L. M., Asst. Surgeon.—Assigned to duty at Nashville, Tenn. S. O. 111, Department of the South, August 6, 1875.

Taylor, B. D., Asst. Surgeon.—Assigned to duty at Fort Snelling, Minn. S. O. 149, Department of Dakota, August 5, 1875.

Kilbourne, H. S., Asst. Surgeon.—Assigned to duty at Fort Gibson, Indian Ty. S. O. 139, Department of the Missouri, August 3, 1875.

Barnett, R., Asst. Surgeon.—Assigned to duty at Coushatta, La. S. O. 145, Department of the Gulf, August 5, 1875.

Wood, M. W., Asst. Surgeon.—Assigned to duty at Camp Douglas, U. T. S. O. 87, Department of the Platte, August 4, 1875.

Tesson, L. S., Asst. Surgeon.—Assigned to duty at the Military Prison, Fort Leavenworth, Kans. S. O. 143, Department of the Missouri, August 9, 1875.

The following named Asst. Surgeons, recently appointed, are ordered to report by letter to the Commanding Generals of the Departments named, for assignment to duty:—Curtis E. Price, Department of California; H. S. Turrill, Department of Texas; Jos. Y. Porter, Department of the Gulf; Geo. E. Lord, Department of Dakota. S. O. 163, A. G. O., August 12, 1875.

NAVY NEWS.

August 13th.

AMELER, J. M., Assistant Surgeon.—Ordered to the *Minnesota.*

MARTIN, EDWIN M., Assistant Surgeon.—Detached from the New York Navy Yard and ordered to the *Intrepid.*

McMURTRIE, D., Surgeon. — Placed on waiting orders.

Medical Items and News.

THE CHOLERA IN SYRIA.—A correspondent of *The British Medical Journal* writes that in Damascus, from the 5th to the 12th of July, inclusive, there were 1,118 cases of cholera, 506 of which proved fatal. The worst day was the 12th, when there were 190 cases and 107 deaths. At Antioch, from the 6th to the 11th, there were 115 cases and 66 deaths.

CHILD KILLED BY A ROOSTER.—A child in Alabama, aged eighteen months, while playing out of doors, was attacked by a rooster and knocked down. He received several strokes from the rooster's spurs, and one of them entering the skull through an open fontanelle, wounded the brain and caused the death of the child.

CHOLERA IN TURKEY.—Cholera showed itself last May in Hama, a town of 30,000 inhabitants, and about five days' distance from Damascus. The Turkish officials at once took measures to prevent the spread of the disease, but the attempt to maintain a *cordon sanitaire* had to be abandoned, and the disease has been gradually spreading to neighboring towns, and cases have occurred in Antioch, Aleppo, and Damascus. Quarantine exists at Syra and Trieste against all vessels from Syria. A medical commission has been sent from Constantinople, among the members of which are Drs. Millinger and Zitterer. Dr. Dillon, late resident sanitary officer at Mussul, has died at Hama of the disease.

The latest accounts reach us through the London *Times*, of the 7th of August, which publishes a letter from the Secretary of the Universal Alliance, who says: "According to accounts from Damascus to the 22d of July, the cholera was raging there. Four hundred cases were reported daily, but the real number was concealed. The Christian quarter of the place was deserted. Sudden deaths occur in the streets of the city. There are no physicians, medicines, or supplies for the treatment of the sufferers. The disease is also bad at Antioch, Deir Hems, Hamah Hauran, and Salahiyah, and among the Druses. The mission schools are closed, and the children have dispersed."

Hamah, where the disease first appeared, is quite out of the track along which cholera has been accustomed to spread in its westward course, and is said to have been introduced by a body of troops coming from Kerbela. The outbreak has followed intense and unusual heat in Hamah, and excessive rain in Damascus.

PLUGGING THE NASAL FOSSA. — A writer in the *Independent* suggests the following procedure in the absence of a canula, sound, or any other instrument. Take a common stout thread, grease it well, then, having rolled one end into a ball the size of a pea, place it in the implicated nostril and direct the patient to snuff it up. If the plan succeeds, the ball, or what remains of it, is found hanging beside the uvula, and ready for the attachment of the plug.

THE SCHOOL FOR NURSES, which the Commissioners of Public Charities and Correction propose to establish in Charity Hospital, was opened on the first of the month; over thirty applications having been received from women of fair qualification. Besides the course of instruction at the bedside, which is to be conducted by the house-staff, lectures are to be delivered to the pupils by junior members of the Visiting Staff, on Nursing, Midwifery, Physiology, Surgical Nursing, Examination of Urine, Hygiene, Children, Poisons, and Food.

THE UNIVERSITY OF MICHIGAN.—The Regents of the University have appointed Dr. Samuel A. Jones, of Englewood, N. J., to the chair of Homœopathic Materia Medica, and Dr. John C. Morgan, of Philadelphia, to the Chair of Theory and Practice of Medicine. The salary of each is $1,800 per annum.

THE CONNECTICUT STATE MEDICAL SOCIETY elected the following officers at its last annual meeting:—*President*, P. A. Jewett, of New Haven; *Vice-President*, A. W. Barrows, of Hartford; *Secretary*, M. C. White, of New Haven; *Treasurer*, J. C. Jackson, of Hartford.

HOMŒOPATHIC HOSPITAL.—It is reported in the daily papers that the Commissioners of Public Charities and Correction voted, on the 7th, to place the building heretofore used as an Inebriate Asylum on Ward's Island, under the charge of homœopathic physicians and surgeons, to be used as a general hospital.

The following preamble and resolutions were passed accordingly: *Whereas*, More than six months ago an appeal was made to the Board by six hundred and fifty-five citizens and tax-payers to designate an hospital to be under the care of homœopathic physicians; and

Whereas, The resolution of this Board, passed February 13th, conditionally assigning the Riverside Hospital for the purpose, has proved inoperative by reason of the continued occupancy of that building by the Board of Health; therefore,

Resolved, That that portion of the Inebriate Asylum on Ward's Island, made vacant by the distribution of the soldiers to national homes, be set apart for a hospital, to be under the care of homœopathic physicians, under such rules and regulations as the Commissioners of Public Charities and Correction may establish.

Resolved, That the Committee of the Homœopathic Society, whose petition in this behalf bears date July 3, 1875, and was followed by a personal interview with the Commissioners on the 13th of July, be notified of this action of the Board, and requested to make such suggestions and recommendations as may seem to them calculated to promote the object in view.

THE ROYAL COMMISSION ON VIVISECTION.—Much fault is being found in England with Professor Huxley, for absenting himself from the meetings of the Committee appointed to investigate the subject of vivisection. He is the only member of the Committee competent to insure a fair hearing for the scientific side of the question; the only other member who is known to have devoted much attention to the subject having made the statement that it were better that mankind should suffer for generations from curable disease and removable pain, than that animals should suffer in order that the means of curing disease and curing pain should be discovered.

Original Communications.

TREATMENT OF DISEASES OF RESPIRATION AND CIRCULATION BY THE PNEUMATIC METHOD.

By A. ROSE, M.D.,

NEW YORK.

Since a certain extensive therapeutical scepticism has disappeared in Germany, there has been an endeavor to determine indications exactly, and to perfect the methods for applying remedial agents. To these rational endeavors we owe the introduction of hydrotherapeutics, electro-therapeutics, gymnastics for orthopædic purposes, inhalations, etc.

A few years ago a new method of local treatment of diseases of the respiratory organs and heart was introduced into medical science, principally by **Hauke**, of Vienna, and **Waldenburg**, of Berlin, which, on account of its practical importance, very probably occupies the most prominent position amongst the varied attainments of therapeutics at the present time.

It has been shown, especially by the investigations of Waldenburg and Riegel (Waldenburg, Die Manometrie der Lungen oder Pneumatometrie als diagnostische Methode. Berlin, klin. Wochenschr., 45, 1871, and Riegel, Die Athembewegung. Würzburg, 1873), that the careful observation of the distinct acts of inspiration and expiration is of primary importance in both diagnosis and treatment of diseases of the respiratory organs. According to these investigations it is important to discern whether the condition of dyspnœa depends upon imperfect inspiration or imperfect expiration, or upon both. It was proven, for instance, that in cases of emphysema only the expiration was imperfect; the inspirative force was not only normal, but often even greater than normal, this being the natural result of the excessive use and consequent development of the inspiratory muscles; however, in cases of phthisis, that primarily and principally the inspiration, and later the expiration, is imperfect. Stenoses of the respiratory ducts produce imperfect inspiration, but leave expiration intact. Waldenburg found that in catarrh of the small bronchi expiration was invariably imperfect, inspiration normal; he also observed that inflammation of the lung tissue and of the pleura had an effect upon respiration similar to that produced by phthisis. To mention a striking example, we will find that *such* treatment will directly benefit a patient, afflicted with emphysema, which assists expiration. By this means—as will be seen later—the surroundings of the thoracic cavity (thoracic wall and diaphragm) will, from their permanent inspiratory and expanded position, be reduced to their former condition of equilibrium.

For treating these different imperfections of respiration successfully, a portable apparatus was invented, which was first made known to the profession at large in the year 1870, by Dr. **Hauke**, in Vienna, by means of which air in a receiver can be condensed or rarefied, and used in either of these conditions for respiration.

Dr. Von Cube, of Mentone, Italy, found, while investigating the subject, that, two years before Hauke's publication, Dr. Lewess (like Dr. Von Cube, a German physician), in St. Petersburg, Russia, had practised the pneumatic method successfully; his apparatus (bellows and cylinder system) is said to be, in exactness and completeness of action, not inferior to those which were constructed later and have become more generally known at the present time.

Several of Hauke's apparatus were imported here by Otto & Reynders, and were procured by German physicians; I recently saw one in the store of the firm mentioned. To my knowledge, however, no communications have been published here in reference to this new treatment and of this new invention.

Hauke supposed his contrivance to be especially useful in cases of emphysema and croup. In emphysema expiration should be made into rarefied air; in croup condensed air should be inspired. He soon dropped this treatment for croup, but he was most successful in emphysema. Later he recommends inspiration of condensed air as a prophylactic remedy for consumption, and he relates a case in which a patient in the first stage of phthisis was so far relieved after a course of treatment, lasting three months, that all symptoms of disease disappeared, with the exception of a dulness on percussion and prolonged expiration.

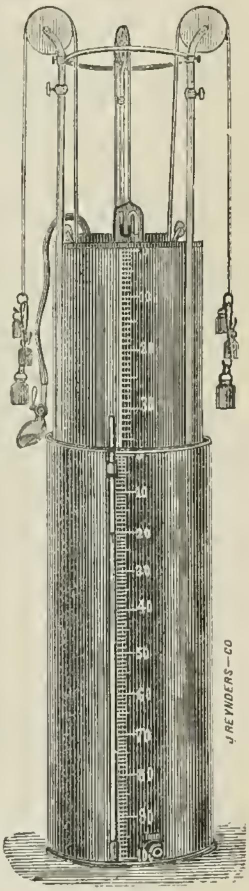

Fig. 1.

After his publication a number of other physicians, most of them in Vienna, employed Hauke's method, and confirmed in their communications the favorable results. However, taken as a whole, such communications were few until Waldenburg overcame the imperfections of Hauke's invention, which consisted in an insufficient development of power (maximum $\frac{1}{40}$ atmosphere) and inconstancy of effect, and constructed his own pneumatic apparatus. He at first experimented with Hauke's, and afterwards with the one of his own combination, upon healthy persons and patients, and arrived at a conviction stronger even than any of his predecessors in this treatment, that the fundamental principle in the treatment by condensed and rarefied air was not only rational in theory, but proved itself perfect in practice.

The principal parts of Waldenburg's apparatus are two spirometer-like cylinders of sheet zinc, fitting one into the other, the outer one of which is one metre high and 30 cm. in diameter. The outer cylinder is filled with water up to a mark, as in the spirometer; the cover of the inner cylinder has two openings, one for a manometer, the other for a flexible tube, passing to an orinasal mask. If the inner cylinder, resting upon the bottom of the outer cylinder, with the stopcock closed, is raised and kept in position by weights, suspended from cords passing over pulleys, the air will be rarefied: if the upper and inner cylinder be allowed to receive air at the atmospheric pressure, and the stopcock is then closed, the cylinder being now loaded with weights and made to descend, the air in it will be condensed. According to simple physical laws the degree of condensation or rarefaction remains the same until the cylinder has been filled or emptied. as the case may be, by the lungs.

When the apparatus has been fully charged once it takes—according to the capacity of the lungs—5-30 inhalations to empty it.

From the measure of the inner cylinder the atmospheric pressure produced by certain weights can readily be computed. In using condensed air, Waldenburg generally commences treatment with 20 lbs. weight, = $\frac{1}{59}$ of an atmosphere (which is, of course, an addition to the atmospheric pressure of 15 lbs. to the square inch), advancing by and by to 40 lbs., = $\frac{1}{29}$ atmosphere, seldom as high as 60 lbs., = $\frac{1}{19}$ of the atmospheric pressure.

As I have been informed, Dr. Langman, of this city, procured a Waldenburg's apparatus last year, which he used in the treatment of some of his patients. In regard to the results which he obtained, he read a paper a short time ago before a society of German physicians of this city. Not having the honor of being a member of this society, I did not have the pleasure of hearing this paper. My friend, Mr. John Reynders, exhibited upon this occasion a new pneumatic apparatus, invented by Dr. Biedert, which he had imported at my request, and which I will describe hereafter. I have learned from Mr. Reynders that Dr. Langman's results were very favorable.

When Waldenburg published his first report upon the experiences of his mechanical treatment of pulmonary diseases, he had treated with Hauke's apparatus seven cases of emphysema, one case of phthisis; with his own, seven cases of emphysema, three cases of phthisis, one of which was complicated with catarrh of the upper lobes of the lungs, the other two chlorotic. The emphysematous patients were invariably directed to expire into rarefied air, but whenever an attack of dyspnœa occurred, inhalation of condensed air during the continuance of the attack was ordered. The other patients generally inhaled condensed air.

I will here detail some of Waldenburg's cases:

St., æt. forty-one, suffered during five years of summer asthma; emphysema extensively developed; expansion of the lungs to the free margin of the ribs. July 7, at the pneumatometer, inspiration in maximo, 120 mm.; expiration 90 mm., expiration into rarefied air, one sitting daily, lasting from 10 to 20 minutes.

	Measure of inspiration as indicated by the manometer.	Pressure of expiration.	Vital capacity of lungs.
July 16th.......	130 mm.	100 m.	3,500 ccm.
" 23d.......	150 "	120 "	3,700 "
August 1st.....	150 "	140 "	4,000 "
" 10th....	168 "	160 "	4,200 "

The patient is perfectly healthy, percussion indicating a considerable retraction of the boundaries of the lungs approaching the normal. He goes to St. Maurice, Switzerland, and is making pedestrian excursions without fatigue, whilst formerly ascending stairs was troublesome to him. On the 25th of August, returning, is under treatment again, twice daily, until the 30th of August, with rarefied air for expiration, the pressure being now increased to sixty pounds.

	Measure of inspiration as indicated by the manometer.	Pressure of expiration.	Vital capacity of lungs.
August 25th....	150 mm.	130 m.	3,800 ccm.
" 30th....	180 "	180 "	4,350 "

Thus it seems from this last record that his lungs had expanded somewhat again, probably from sudden removal to the highlands, where the patient also suffered from epistaxis. Under the latter short period of treatment the lungs contracted again to their perfectly normal boundaries, as was proven to be the fact by percussion, and the above figures are (at least as far as pneumatometry is concerned) such as are seldom reached by perfectly healthy and strongly-built persons as maxima. Mr. St. did not only reach the maximum in inspiration and expiration of 180 mm., but could also comfortably maintain the position of the mercury column at a height of 130 mm. in inspiration, and of 125 mm. in expiration. He was not affected with summer asthma this year.

In all the four cases of phthisis an increase of the vital capacity, and of inspiratory and expiratory power of the lungs could be observed; three of them also perceived an alleviation in breathing, sometimes for an hour, sometimes for a longer period, and consequently general improvement was felt. In one of the cases of phthisis the patient had suffered for two years of chronic hæmoptysis, which was treated with the most diverse remedies in vain. Waldenburg had the patient, who was comparatively quite strong, but very dyspnoic, inspire condensed air. The objective and subjective alleviation appeared in a surprising manner. After a few sittings, bloodspitting became less frequent, and afterwards did not take place for three weeks, while during two years the hæmoptysis had scarcely paused longer than eight days. However, in this case a relapse occurred, and although an interruption in the bleeding followed after a few days, it returned again and then persisted as heretofore.

According to the results of Waldenburg, a curative effect against the paralytic conformation of the thorax may be anticipated. In Virchow's *Archiv* for 1873 a case of catarrh in the upper part of the lungs is mentioned, which was treated by Waldenburg with applications of the pneumatic method with perfect success.

The results of experiments in inspiring rarefied air have led to the conclusion that it is the most effectual gymnastic exercise for the thorax, and that, therefore, it is to be recommended as a prophylactic to persons inclined to phthisis.

Furthermore, atelectasis (especially in consequence of pleuritis and paracentesis thoracis), asphyxia, and stenosis of the bronchi are conditions of the lungs which indicate treatment by the new method. Waldenburg, in his summary conclusions, expresses himself as follows:

"*Inspiration of condensed air, as well as expiration into rarefied air, increase permanently the vital capacity of the lungs* (as shown by spirometry), *and the power of inspiration and expiration as measurable by the pneumatometer. This fact appears to me of such paramount importance, that it alone leads me to consider the pneumatic method as one of the most important remedial agents of therapeutics.*"

Dr. J. Sommerbrodt, of Breslau, published in May, 1874, a series of extraordinary results attained in the treatment of lung disease by Waldenburg's apparatus.

He certainly had opportunity to test well to what extent cures could be effected, having had under treatment by this method during four months more than sixty patients. He found also the limits beyond which no more effect could be produced, in so far that in two cases of very extensive emphysema he could influence the catarrh beneficially, but the emphysema only in a very small degree; and furthermore, in a case of emphysema of ten years' standing he found every attempt fail to reinstate the lost power of expiration. However, in more than fifty cases of emphysema of not so long standing, the most diverse in character and duration, partial recovery never failed to be obtained, and in most cases it was complete.

I cannot abstain from giving some of Sommerbrodt's cases in detail:

Miss H., æt. 22. Father and a sister deceased of phthisis pulmonum. During her childhood she was not often ill; grew up fast under good conditions of nourishment. During the past three years the patient has become thin and sickly, and has suffered from coughing; menses were generally scanty and irregular. Repeated milk treatment in the country effected no relief. Suffered from almost continual diarrhœa for three months. December 28th, 1873, the patient is weak, thin, bones very prominent, pale mucous membranes, somewhat circumscribed redness on the cheeks, transparent skin. She coughs, has short breath when ascending stairs, not much expectoration, poor appetite. She is 164 cm. high, weighs 115 lbs.; vital capacity 2,000 ccm. (about 600 ccm. below the standard for her height); negative pressure of inspiration, 40–44 mm.; positive pressure of expiration, 40–44 mm. No pathological dulness on percussion anywhere on the thorax. On auscultation in the fossa supra-clavicul. dext. single sibilant râles, also crackling râles; weak vesicular inspirium and prolonged expirium at the same place. Heart normal. Entero-catarrh. (Tannin 0.06 three times daily.)

After the 29th December inhalations of condensed air ($\frac{1}{60}$ atmosph.) were ordered daily. On the 31st December the patient observed that she could ascend stairs more easily. After Jan. 5, 1874, the inhalations had to be discontinued on account of increased diarrhœa, accompanied with fever, and the patient had to lie in bed. On the 27th January, the intestinal catarrh could be considered as completely cured (by Argent. nitr. c. op.). Appearance sickly. Weight of body 108 lbs. On Jan. 28, the evidence of catarrh in the apex of the right lung was indicated by sibilant and crackling râles. Recommencement of inhalations of compressed air (2 cyl., $\frac{1}{60}$ atmosph.). After February 2, considerable improvement of color appears. The cough, which often commenced early in the morning and lasted sometimes all day, and the shortness of breath, diminished strikingly. February 7, pressure of inspiration, 90 mm. Expir., 40–44 mm. *No trace of catarrh of the upper part of the lungs apparent.* Loud vesicular inspirium all over the right lung. Digestion good.

After this day the patient inhaled 1 cyl. compressed ($\frac{1}{60}$ atm.), and $\frac{1}{2}$ cyl. rarefied air ($\frac{1}{400}$ atm.) until Feb. 19, by which time coughing had entirely disappeared. Walking and ascending stairs without any dyspnœa; continued increase of the weight of the body. General appearance most healthy.

February 19, negative pressure of inspiration, 40–46 mm. From Feb. 20 to March 20, inhalation of $\frac{1}{2}$-1 cylinder of rarefied air every alternate day. March 20, weight of body, 120 lbs. March 21, patient was discharged perfectly cured. April 25, vital capacity of lungs, 2,200 ccm.; negative pressure of inspiration, 44 mm.; weight, 120 lbs. No cough. In the upper part of the right lung perfect vesicular breathing; general appearance very healthy. According to last report, patient was doing very well in June, 1875.

Amongst others, Dr. Sommerbrodt treated a boy afflicted with severe chronic bronchial catarrh, which did not yield in the least to any medical treatment. Inhalations of condensed air by Waldenburg's apparatus had the effect of mitigating the attacks of violent coughing. Treatment was commenced March 9, and lasted until the 13th, with continual improvement. After March 15 the patient absolutely did not cough. An equally brilliant result was attained in the case of a singer, generally well known for his beautiful tenor voice. He suffered from chronic catarrh of the trachea and bronchi, and could not sing for four months. Treatment was commenced on March 26, with inhalation of condensed air, and after the twelfth sitting no evidence of disease remained. April 2, the patient sang the tenor's part of the "Creation" with as strong and beautiful a voice as he ever had at his command before the involuntary interruption of four months.

Waldenburg has tried the new method unhesitatingly on many healthy persons and patients, and has arrived at the important discovery, through his researches, that the effects of condensed and rarefied air upon the organs of circulation are equally as exact, constant, and useful for therapeutic purposes as upon the organs of respiration. In respect to this application of the pneumatic method, there are no observations of my own to record. I therefore quote extracts only from Waldenburg's papers.

The blood pressure must be decidedly modified as soon as the air pressure in the lungs is changed by the inspiration of condensed or rarefied air, or by expiration in rarefied or condensed air, as has already been demonstrated by the experiments of J. Müller, Ed. Weber, and Donders. With the assistance of the pneumatic apparatus these effects may be studied in detail.

In inspiration of condensed air the pressure in the lungs, which in normal inspiration is remarkably negative, is notably increased in the use of sufficiently condensed air. The heart and the large vessels are lightened, the more so as the density increases, so that when the air is sufficiently condensed the lungs will cause a pressure upon the circulatory organs enclosed in the thorax. The consequence thereof is an increase of pressure in the arterial system (pulse more tense, even hard), increased flow of blood (pulse fuller), checked flow from the veins into the right heart, increased quantity of blood in the greater circulation, decreased quantity of blood in the lesser circulation. The frequency of pulsation is generally distinctly decreased. Expiration in condensed air of low density has a similar effect upon the circulation as the inspiration of condensed air of high density.

Inspiration of rarefied air has diametrically opposite effects to the inspiration of condensed air. The pressure in the arterial system and the flow of blood are diminished; the pulse loses tension; the entire arterial tube appears smaller; the lessened pressure of air in a very expanded thorax aspires the blood with greater force from the veins into the right heart; the greater circulation is relieved of blood, and the organs enclosed in the thorax, especially the lesser circulation, are abnormally charged with blood. If the air is but slightly rarefied, the pulse will be moderately accelerated.

Expiration into rarefied air acts upon the organs of circulation in a manner similar to inspiration of rarefied air, but in much less degree.

It would be interesting to compare these facts, and the results of further experiments with the pneumatic apparatus, with the observations made on those laborers who were engaged in laying the foundations of the East River Bridge between New York and Brooklyn, and who were working in caissons, far below the water-level, in an atmosphere of very great density.

Indications for condensed air present themselves in cases for which it is desirable to increase the power of tension of the heart, and accordingly the pressure in the arterial system, to increase the quantity of blood in the greater circulation, and to relieve the lesser circulation of blood, *i.e.*, especially diseases of the heart in which the flow of blood from the lungs or from the left ventricle is checked, as, for instance, stenosis or insufficiency of the mitral and aortic valves, chronic inflammatory processes in the lungs, and bronchial catarrh of severe form.

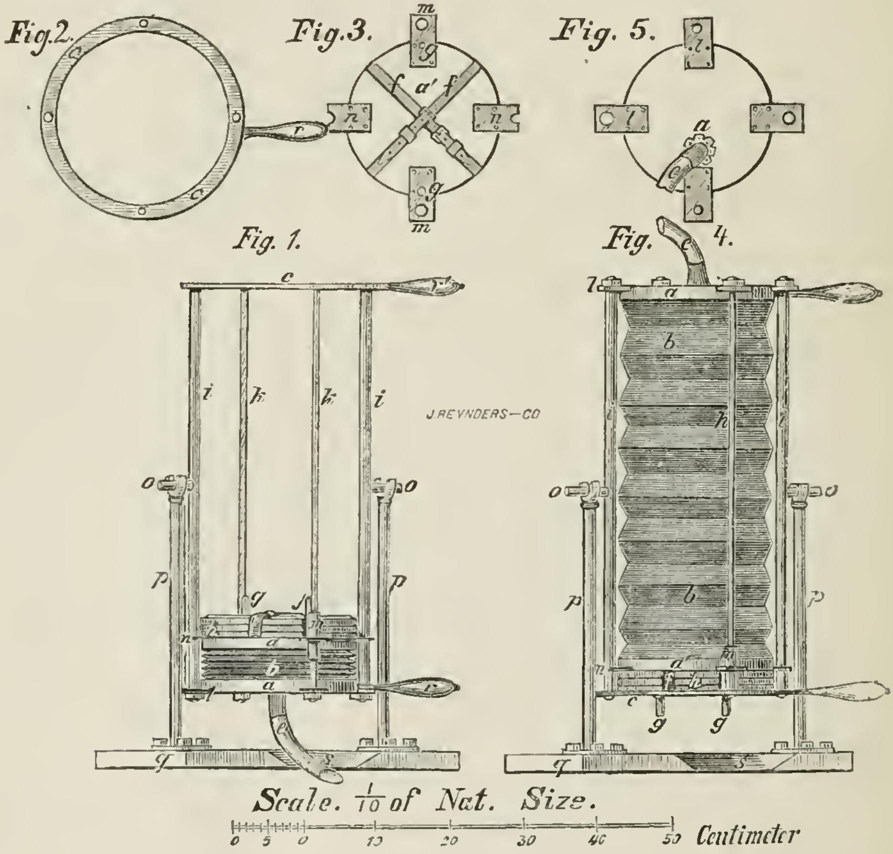

Fig. 2.

Indications for rarefied air are presented in cases in which the pressure in the arterial system is to be decreased, the volume of blood in the greater circulation to be diminished, and the quantity of blood in the thoracic organs is to be increased, as in affections of the right heart.

Condensed air is especially *contra-indicated* in cases of abnormalities of the walls of the vessels (atherosis) and disposition to hemorrhage.

By means of the sphygmograph Haenisch demonstrated graphically the effects of the pneumatic apparatus upon the heart and system of vessels described by Waldenburg. As well upon healthy persons as upon persons afflicted with diseases of the heart it could be shown that by the inhalation of condensed air the systolic elevation of the curve of the pulse was higher, the dicrotic curve less marked, and that, on the other hand, after expiration into rarefied air, the systolic elevation is less marked, and the dicrotic curve is relatively more marked and higher. This agrees perfectly with Landois's teachings of the condition of the arterial pulse, if the effects produced by the pneumatic apparatus described by Waldenburg are considered. Gradually increasing changes of curves of the pulse in this direction could be proven on patients afflicted with heart disease after continued use of the apparatus thus shown graphically, and also by the disappearance of the other signs of the disturbance of the compensation. In a case of insufficiency and stenosis of the valvula mitralis the curves of the systolic elevation appeared distinctly more prominent under the influence of inhalation of condensed air after fourteen days than before the first inhalation; the dicrotism was much less marked; also during the treatment the bronchial catarrh, the cyanosis, and the shortness of breath disappeared, and the quantity of urine increased, and thus the symptoms of the interruption of compensation considerably improved.

Gerhardt recommends for the promotion of the act of expiration in cases of emphysema, instead of expiration into rarefied air, assisting the expiration by pressing the hand on the breast and abdominal walls. In this manner he treated two cases of emphysema daily two or three times (20–30 respirations), and observed that in both the vital capacity of the lungs increased. Disagreeable consequences in both cases were slight bronchial hemorrhage, and in one, convulsions of the muscles of the face.

Berkart, in London, next to Hauke and Waldenburg, made a contrivance to produce rarefaction of air during the act of expiration. He fits a metal mask with rubber margins to the mouth and nose, from which mask a tube passes to a suction-pump. This pump is worked during every expiration, and indicates the degree of rarefaction of the air on a scale.

Dr. Von Cube has also contrived a pneumatic apparatus which is an improvement on Hauke's invention, and is described and illustrated in the *Berl. klin. Wochenschr.*

Dr. B. Fränkel, of Berlin, in 1874, made an invention in the same direction, which, however, was faulty in different ways, and not of great durability. Later, in the year 1875, he invented a second pneumatic machine, to which I will refer hereafter.

A very superior apparatus was constructed by Dr. Ph. Biedert, assistant surgeon in fourth regiment of Hessian Infantry, in Worms, which I have used myself.

In constructing his apparatus, Biedert availed himself of the principle of the bellows as applied in the accordeon, similar to, but independent of, Fränkel's invention. The bellows has the form of a cylinder, 50 cm. in height, 22 cm. in diameter, which is closed at the ends by boards $1\frac{1}{2}$ cm. in thickness, termed covers. Its walls are made of leather, air-tight, and have the necessary strength to maintain their ordinary form against over-pressure of air. The lower cover has a perforation near its front margin into which a rubber tube is fitted air-tight, and when in use is prevented from collapsing by a spiral wire which it contains. Straps are fastened crosswise to the upper cover for holding weights; pins being inserted which fit into holes in the weights and prevent their slipping. These weights are round plates of iron of the diameter of the covers of the bellows; two are $2\frac{1}{2}$ lbs. each, the others 5 lbs. each; 30 lbs. go with every apparatus. When the bellows is expanded as much as possible it contains a column of air, the diameter of which is upon an average 2 cm. less than that of the covers, on account of the zigzag outline of the walls of the bellows. The pressure which the covers of the bellows must support is equal to that upon a circular plane 20 cm. in diameter, or 314 square cm. of area, which will be 648 lbs., taking 1,033 grammes as the pressure upon a square cm. If the bellows is charged with 1 lb., the condensation of the air will be $\frac{1}{648}$; with 10 lbs. it will be $\frac{1}{64}$; with 20, $\frac{1}{32}$; with 30, $\frac{1}{21}$. If the bellows is reversed, weights downward, and in this manner expanded, the cubic contents will be equal to the area of the cover multiplied by the height of the expanded bellows, $314 \times 50 = 15{,}700$ cm.

The other part of the apparatus is a stand of iron consisting of four opposite iron bars, two thinner and two stronger, connected on top by a flat ring, the diameter of which is 24 cm. The lower ends of the bars are fastened to the lower cover of the bellows, which can readily be removed. The upper cover of the bellows can be moved up and down, and is kept in line by guides running on the two upright thin bars of the stand. Guides are also attached to the body of the bellows, which slide on the two stronger upright bars. Small projecting pins are attached to the centres of the larger bars, upon which the whole apparatus swings. These pinions are supported upon uprights from a firm base of wood. Upon the pinions the apparatus can be turned by two handles, one of which projects from the ring above, the other at the lower end from one of the bars. This permits of a half turn of the apparatus backward.

The machine is placed upright on the margin of a table, so that the tube will lie in a groove cut into the wooden base, and the desired quantity of weights is fastened to the upper cover of the bellows. If the upper end is turned down, the weights will sink and the bellows will fill itself with air. The bellows is then turned back, while the patient compresses the rubber tube with his fingers until he is ready to inhale through the mouth-piece attached; he then gradually inhales the air as the weights compress the bellows. While the patient expires into the free air the bellows is filled again by turning, and the operation continued in this manner *ad infinitum*. For expiration into rarefied air the tube is compressed and the bellows turned weights downward; applying the tube to the mouth the air passes from the lungs into the partial vacuum produced by the expansion of the bellows. The bellows filled with the expiratory air is emptied by turning, while the patient inspires air at the atmospheric pressure, and the operation repeated.

Finally, the patient can inhale condensed air from the partially filled bellows, and after turning the apparatus exhale directly into rarefied air.

The first patient on whom I used it was Fred. Staubach, æt. 60 years, tailor. Called at my office for the first time May 28th, 1875. He had suffered during ten years from asthma, and was troubled very much in the morning, when rising, with a violent cough. Emphysema of lungs very extensive; lower boundaries of the lungs as far down as the free margin of the ribs; no dulness over the heart on percussion; coarse râles on the right side; exaggerated respiration. Patient suffered besides from chronic catarrh of the intestines, and had for a week violent diarrhœa. Ordered a solution of ferrum oxydatum dialysatum, and after a few days all symptoms of the intestinal catarrh disappeared, and did not return until the present time (July 3d). I commenced the pneumatic treatment on June 16 only, as I had some improvements made on the apparatus, consisting mainly in a stronger bottom made of three layers of wood arranged cross-grained—the original bottom having given way and leaking. The patient came from a distance, and on account of excessive weakness was accompanied by his wife. I made him exhale into rarefied air, the apparatus being weighted with $12\frac{1}{2}$ pounds. After ten minutes the patient, an old man, was fatigued, and returned home.

June 17th. Had felt very easy on his homeward journey after the previous visit, and used the apparatus this time without my assistance for fifteen minutes.

June 18th. Did not come on account of bad weather.

June 19th–24th. Daily use of apparatus, weights as before ($12\frac{1}{2}$ pounds), generally for twenty minutes at one sitting. He now came all alone during the hot weather, and in the afternoon between two or three o'clock. He was highly gratified with his improved condition, while for many years exercise such as ascending stairs caused him great fatigue, obliging him to take a good rest on each floor as he went up. He can now, without inconvenience and without resting, ascend to the third floor.

June 25th. No sitting.

June 26th–27th. Continued use of apparatus. During the past week he coughed only once in the morning. Apparatus charged with $17\frac{1}{2}$ pounds.

June 28–29th. Weight 20 pounds.

June 30th. Weight $22\frac{1}{2}$ pounds. During the past eight days no cough.

July 3d. Weight 25 pounds.

Patient has left the city on a visit of some length to his children, living in the country. The general improvement in this case is so evident that it is noticed with surprise by all the man's acquaintances who meet him. It is interesting to note that, having certainly no knowledge of anatomy or physiology, he should have observed that while expiring into rarefied air he had a sensation as if something was being drawn up from the abdomen into the chest. Waldenburg's patients perceived the same, and thus described the elevation of the diaphragm.

Another case in which I have been operating with Biedert's apparatus is M. Eck, 33 years old. Married. Tobacco dealer. Parents died when they were about fifty years old. His father had asthma, while his mother suffered a great deal from pulmonary hemorrhage, and finally died from phthisis pulmonum. A sister is also afflicted with asthma. Patient lost the sight of the left eye in consequence of some illness during infancy. His health was always delicate. At the age of twenty he suffered considerably from bronchitis. The year following he was sick with typhus fever, which lasted fourteen weeks, and sick again with remittent fever for six weeks, when twenty-six years old. During the last year the patient has suffered from cough and expectoration; coming to my office for the first time in September, 1874, had fever and night sweats. On examination chronic catarrh of the apex of the right lung was found. Treatment consisted principally of tonics. No narcotics. The patient being in straitened circumstances a journey South was out of question. Taken as a whole, the condition of the patient did not improve much, although he visited me at regular intervals and took religiously his iron, chinin, and the unavoidable cod-liver oil.

Examination on July 1st, 1875, revealed relative dulness on percussion at the right apex, posteriorly as far down as the middle of the scapula, and anteriorly as far as the first intercostal space. Over the same space *sibilant râles* were heard on auscultation. Expiration is prolonged. Height, 5 feet 8 inches; weight, 113 lbs.

Treatment by pneumatic method (inhalation of condensed air) was commenced on July 6th, 1875. At this time there existed severe cough, accompanied by reddish-colored sputa—especially is this the case in the morning; sometimes shortness of breath. *Taking a deep breath always excites the cough.*

At the commencement of treatment Biedert's apparatus was charged with 7½ lbs. This weight was increased every day by 2½ lbs. until July 11th. From this day until July 22d we operated with the weight of 20 lbs., increased again to 22½ lbs. on July 23d, with which we are operating yet (July 31st). Duration of daily sitting, twenty minutes.

July 9th, there was a remarkable increase of reddish-colored expectoration, together with a tablespoonful of blood; sputa were reddish colored also during the day until July 12th. July 10th, I prescribed an infusum secalis cornuti.

July 13th to 18th, cough easier, expectoration less, sputa still show traces of blood, being reddish colored; but this color of the expectorated matter, and all traces of blood in it, have altogether disappeared since July 18th. From this time until to-day (July 31st), the amount of sputa is on the average only half as much as it was at the commencement of treatment; some days it is hardly a quarter the former amount.

During the week ending July 31st the patient is doing remarkably well, and finds himself in the best of spirits. Examination made to-day, July 31st, shows that the percussion sound over the space above mentioned is higher and shorter, inspirium vesicular everywhere, expirium prolonged; *to-day I can discover no râles.* The patient calls my especial attention to the fact that he is able to breathe very deeply without exciting the cough by it, as such used to be the case formerly at the slightest exertion of this kind.

The pneumatic method has been modified by Dr. von Cube, of Mentone, and Domanski, of Krakau, Poland, in applying medicines to the deeper air-vessels by means of condensed air (which could not be approached by any local therapeutics, not even by inhalation). They recommend this local treatment, for instance, in cases of phthisis pulmonum in the later stage, when the bronchial secretion is more copious and the inner surface of the lung resembles an ulcer such as no surgeon would treat indifferently. To check the pathological changes, and to diminish the bronchial effusions, medicines, especially when they are given through the stomach, may not suffice, which may be readily appreciated when it is remembered that surgeons mostly treat wounds and ulcers locally; not, however, dispensing altogether with general treatment. For introducing medicines in this manner into the lungs, Domanski causes the condensed air leaving the apparatus to pass through a vessel in which the medicated vapor for inhalation is produced.

For this purpose he removes from Waldenburg's apparatus the mask and stopcock, fills the inner cylinder as stated with atmospheric air, and without taking the weights from the hooks, connects the rubber tube with a glass tube, reaching almost to the bottom of a Woulff's bottle. In this bottle, for enlarging the volatilizing surface, there is some cotton impregnated with the volatile medicine. In the second neck there is a short glass tube, which, by means of a rubber tube, is connected with the mask and stopcock Everything is, of course, air-tight. If the weights are now removed from the hooks and laid in any quantity on the inner cylinder, all air contained in the apparatus will be compressed to an exactly known degree, and if the stopcock at the mask is now opened, the air will pass from the cylinder into the Woulff's bottle, where, impregnated with medicated vapor, it enters the lungs. After the inhalation is completed, the stopcock is closed, and the patient expires into the open air, and then repeats the operation. The medicines used up to the present time are oleum terebinthinæ, oleum pini, creosot., and acidum carbolicum. Von Cube, as well as Domanski, have treated a number of patients and obtained good results. The histories of these cases, however, are not yet ready for publication.

I have endeavored to describe the pneumatic method in its historical development, and now I will dwell more particularly upon some modifications of the use of condensed air, originating with v. Cube.

In cases in which he desires to produce an effect upon one lung only, the patient inhales half inclined upon one side, with a hard cushion placed under the loin. The air entering the lung in this posture overcomes the resistance of that part of the thorax more readily which does not sustain the weight of the body. Among others, Dr. v. Cube treated a patient who had had, several months previously, a pleuritis exsudat. on the left side, with what result has not yet been made known.

Besides the apparatus described, a number of others have been devised by Högyes, Finkner, Treutler, Stoerk, and others. The literature of these apparatus is not at my command, certainly none of these have come into general use.

The non plus ultra of simplicity and cheapness is the new contrivance of B. Fränkel, of Berlin, referred to above, resembling the ordinary accordeon. The annexed illustration shows the apparatus as used. As may be seen, it consists of the bellows of an accordeon.

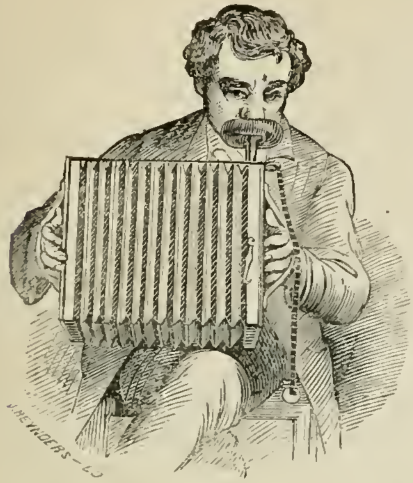

FIG. 3.

On one side a metal tube is inserted 2 cm. in diameter, which carries the mouth-piece; the latter may consist of an inflating rubber cushion, similar to a pessary. Fränkel recommends the sitting position for using the apparatus. If the bellows is expanded by drawing the accordeon apart, the air contained in it will be rarefied; if it is compressed, the air is condensed. If the patient, during the expansion or compression, applies his mouth to the cushion the effect of the rarefaction or condensation of the air will communicate itself to the intra-thoracic air. The apparatus is without valves; as it is very easy to apply or withdraw the mouth from the cushion at the right moment, any such arrangement as valves is therefore not necessary. If expiration is to be made into rarefied air, the mouth should be applied to the cushion and the bellows expanded. After the expiration the mouth is withdrawn from the cushion, and while inhaling the free air the patient closes the bellows, for expiring, the apparatus is found empty and ready.

All varieties of effects described with Biedert's apparatus can also be produced with Fränkel's apparatus, by the patient himself, without assistance. He can either inspire condensed air only, or he can inspire condensed air, and expire into rarefied air.

On the margin of the apparatus there is a centrimetrical measure, which plainly indicates by how many centimetres the wooden disks are separated or brought together. This shows the volume of air which has been drawn into or expelled from the apparatus. The apparatus is 35 cm. in height, and 16 in breadth. If the foldings are considered, the bottom area will be 15 × 34 = 510 square cm. The expansion of the apparatus of one cm., according to the measure affixed, would correspond with 510 cm. of volume.

Fränkel considers the attachment of the dynamometer to his apparatus as unnecessary.

The air from this apparatus is more completely and more fully perceived by the lungs, and with less modification of its original pressure than by any previous invention, due to the shortness of the breathing tube. All excess of action is avoided, as it is worked by manual force only. Fränkel having found that with his greatest efforts he could not condense the air above $\frac{1}{15}$ of an atmosphere, nor the power of suction above $\frac{1}{20}$ atmosphere.

The patient is sensitive to the amount of pressure and draught upon his lungs, and can regulate both according to his own feelings. Fränkel leaves this regulation to the patient, but warns him against overexertion.

The advantages of the apparatus are, that it is easily transportable and applicable anywhere (for inducing artificial respiration in cases of chloroform asphyxia, asphyxia of the new-born, poisoning by oxide of carbon, etc.). The apparatus is so cheap that poorer patients can avail themselves of it and use it at home.

According to my judgment, Biedert's apparatus will be used more especially in physicians' offices, and Fränkel's by the patients themselves at their residences.

Résumé:

1. The pneumatic method answers the indication for a more thorough ventilation of the lungs, and an increase of their capacity and power of breathing.

2. The condensation of air, and especially rarefaction of air, have not only a symptomatic effect, but also a decidedly curative one, especially in cases of emphysema.

3. By no method—with exception of Gerhardt's impracticable one—can be accomplished the reduction of the abnormally expanded lungs to the normal or even a smaller volume, or can be caused a retraction of the emphysematous lung.

4. Methodical expiration into rarefied air is the only remedy for emphysema, and its application is highly commendable.

5. The pneumatic method is a powerful means of affecting mechanically the action of the heart, and the circulation of the blood.

6. Hardly any other therapeutic remedy, perhaps with the only exception of cold, is equal to the pneumatic method in certainty of effect, which can be mathematically expressed, like the physical law itself on which it is based.

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ELASTIC LIGATURE FOR SECURING THE FUNIS.

BY GEORGE BAYLES, M.D.,

NEW YORK CITY.

DR. PULLING'S article in THE MEDICAL RECORD of July 17th, describing his device of an elastic clamp for securing the funis after parturition, attracted my attention, especially as by it I was reminded that it might be of service to describe a more simple and ready, yet equally efficient, method that I have adopted for the same purpose.

I carry in my pocket-book a moderate supply of small elastic india-rubber rings, of a size that would be somewhat stretched by being drawn over the first point of the fourth finger of my hand. By so carrying these rings I have them always with me, and need not resort to the clumsy and never perfectly certain method of tying with such string as may be provided by the attendants of the patient. When ready to apply the rubber ring I double the umbilical cord upon itself, so that three inches are taken up in the loop (or four inches if the cord should be exceptionally thick), as close to the umbilicus as possible. I then spring a rubber ring over the loop and roll it down to within half an inch of the abdominal surface. I then cut the funis about half an inch from the rubber ring, external to the loop. I have therefore two portions of the funis constricted by one rubber ring. When any doubt occurs as to the sufficient constricting force of the ring, I double the ring upon itself and stretch it over so that it shall do duty as a double strand. Another ring is commonly slipped over the placental end of the funis. This method of ligation has proved in my practice entirely reliable, and for cheapness and convenience is all that can be desired. There is no slipping, and even should the end slip the ring, the stump is still engaged at the base, and quite secure.

It compresses equally firmly after exudation has diminished the fulness of the cord. It determines the exact line of separation, and completes the sloughing process with greater promptness than by the usual method of tying merely the extremity of the umbilical stump. The loop does not form an uncomfortable bunch, for it soon flattens out parallel with the surface of the abdomen, under the pressure of the binder used in infantile dressing. The raw surface of the cut end of an umbilical stump thus ligated, and dressed by the linen wrap as usual, will not moisten and excoriate the tegumentary surface of the abdomen more than by any other method. It is in practice a perfect ligature, which has never caused me the slightest anxiety, as it has not failed to prevent hemorrhage in all the cases (now more than a hundred) in which I have employed this common rubber ring, to be found in the stock of any stationer.

37 West 48th Street, *July* 29, 1875.

A CASE OF MEDIAN LITHOTOMY.

By GEORGE R. FOWLER, M.D.,

BROOKLYN, N. Y.

I report this case of median lithotomy because I think the attention of the profession ought to be called to the advantages which this method of operating possesses over all other cutting operations for the removal of vesical calculus; and that any case operated upon should be reported in order to support the truth of the conclusions of Drs. Sands and Little, of New York, who have striven more than any others in this country to popularize this, the modification of the Allarton operation.

G. G., aged twenty, had been complaining since he was four years of age of symptoms of vesical irritation, being subject to frequent attacks of dysuria. These would pass off after a few days' duration, he being troubled with shooting pains in the penis, extending to the glans and prepuce.

Suspicion of stone had been entertained, and upon several occasions he had been sounded by different physicians, but no calculus had been discovered.

When first called, I found him pacing the room in dreadful agony, holding the penis strongly grasped in a napkin, the urine dribbling away upon the latter every few minutes.

No hæmaturia had occurred, but the symptoms were so strongly marked that I at once declared my belief that he was suffering from a vesical calculus.

The patient, almost crazed with pain, at first utterly refused to allow a sound to be passed, but finally yielded, and the calculus was discovered. The sensation was conveyed of a large stone, although its dimensions were not accurately determined by the lithotrite.

On December 15, 1873, I performed the median operation of lithotomy, Drs. Krackowizer, Kammerer, Barber, Pilcher, Hamilton, and Maddren, being present.

The patient, being under ether, a staff having a broad and shallow groove on its posterior surface, was passed into the bladder, and entrusted to the firm and steady grasp of Dr. Krackowizer. The index finger of the left hand was introduced into the rectum, its palmar surface upward, and its extremity resting in the groove of the staff at the anterior portion of the prostate body, at its junction with the membranous portion of the urethra. A long and narrow-bladed knife was then introduced, with its back downward, about half an inch from the anterior verge of the anal orifice, and, with my finger acting as guide, the point entered the urethra at the junction of the membranous and prostatic portions. The knife was then carried upward until the whole length of the membranous portion of the urethra was divided, about half an inch. The knife was then withdrawn, at the same time enlarging the external incision.

The left index finger was then introduced into the wound, and by firm pressure and a steady boring motion the prostatic portion of the urethra was easily dilated. The staff was then withdrawn, and the forceps passed alongside of the finger, Dr. Pilcher making firm pressure over the suprapubic region in order to bring the stone easily within reach.

The calculus having been grasped with its longest diameter parallel with the long axis of the blades of the forceps, it was found to be too large to allow of extraction without running the risk of producing a dangerous amount of laceration of the neck of the bladder. It was therefore crushed by the forceps and withdrawn piecemeal.

The hemorrhage was very insignificant, and the patient rallied well from the shock.

By the third day the patient had complete control of the urine, passing it through the wound and retaining it at will.

On the sixth day he passed urine per urethra, and on the fifteenth day per vias naturalis entirely.

Upon examining the stone there was discovered a hair embedded in its encrusting portion. It had evidently been carried ahead of a sound down the urethra upon some previous occasion while he was being sounded. This suggests the possibility of producing a calculus by want of attention to this point. Every surgeon must recall instances where, previous to passing a catheter, he had found and removed a hair from the pubic region, lying across the meatus.

Dr. Charles Jewett kindly made the examination of the calculus for me, and made the following report: "Weight of calculus, 420 grains; the nucleus is uric acid. The body of the stone, about half its weight, is oxalate of calcium. The encrusting portion is a mixture of phosphate of calcium and triple phosphates, the material of the so-called fusible calculus."

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Extra Fees.—With a view to encourage patients and others, who may be in need of the attendance of a physician, to send him word at such time as will admit of his arranging his work for the day, the Forfarshire (Scot.) Medical Association have confirmed the resolution unanimously adopted at last year's meeting, "that all visits sent for at 10 A.M., and requiring to be attended to the same day, should be charged at an extra rate."

Punishment for Carelessness.—A butcher, living at Linden, near Hanover, has been condemned to two years' imprisonment for gross negligence in selling a quantity of trichinized meat, which caused the illness of about four hundred persons, and the death of more than fifty.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

PUBLISHED BY

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PRELIMINARY EDUCATION AND INDEPENDENT EXAMINING BOARDS.

Our esteemed British contemporary, the *Medical Press and Circular*, in commenting upon our remarks regarding the necessity of proper preliminary education for medical students, gives a very encouraging account of the utility of enforcing such a provision by the experiences of medical education in Great Britain. The system of preliminary education which is there enforced, as well as in the other European countries, carries its recommendation upon its face, and needs no argument to prove its indispensability. The institution of independent examining boards is another feature in their system of medical education which proves the benefit of taking from the various medical colleges the absolute right to confer degrees.

These reforms, which have made medical education what it is in that country, have been the gradual outgrowths of much discussion, much up-hill work, and a great deal of hard fighting against the selfish interests of the different medical schools. The profession in America has the same task before it, if it would accomplish so desirable a result, and the more the subject is agitated, the more thoroughly it is discussed, the more independently it is advocated, the sooner will the necessary changes be made. The individual interests of the colleges here are not a bit stronger than they were in the mother country when the question was first brought up for the candid consideration of the progressive educators of the profession there. It is true we have to contend with many difficulties in securing a uniform law upon the subject, difficulties which are always inherent to a Republican form of government, but these are not by any means insurmountable when the justice of the principle is fairly vindicated, and the necessity of the reform fairly proven.

In respect to independent examinations the medical profession is very much behind the others, for example the clerical and the legal. The latter, more especially, have considered an impartial and independent examination for admission to the bar one of the prime requisites to insure the fitness of every attorney for the practice of his chosen calling. The board of legal examiners are regularly appointed by law, and their decisions upon the qualifications are considered final and absolute.

It is true that within the past few years there has been an exception to the rule in favor of the Columbia College and University Law Schools, which by virtue of special legislation have been empowered to grant the requisite licenses independent of the bar committee. But this privilege is now very seriously questioned by leading legal educators, as calculated to subvert the best interests of the profession and lower the necessary standard of qualifications. With an implied intention of offering greater facilities for the study of law, these schools have taken a step backward, which places them on a par with the majority of our medical colleges.

A leading newspaper, in commenting upon the necessity of a reform in this matter, makes the following remarks, which, find an exact picture in the condition of our own schools, and equal necessity for the desired reform:—

> "It is certainly matter for regret, if not for some disappointment, that the colleges of law in New York have not, in the judgment of the Courts, justified the legislative partiality which permitted them to bestow upon students, after a preparation comparatively brief, the degree of Bachelor of Laws, and authorize them to practise law. But opinion continues to gain ground that these privileges have not been put to the best use in this State. The degree has come to be altogether too common, and, unhappily, little if any distinction now attaches to it. In this city a mob of young men is annually thrust into the most arduous of professions, when their minds are immature, and altogether undisciplined by any previous contact or proper acquaintance with the life and duties of the practical lawyer; and it will hardly be denied that many who are unequal to a manly effort to meet the requirements of the Courts, join classes in the schools in hope, if not with the expectation, that they will thus find an easier way to the bar."

The evil although of comparatively short duration, has aroused the attention of the Supreme Court of New York, which is keenly alive to the necessities of the occasion. In keeping with this sentiment to raise the standard of legal qualification, Mr. Justice Leonard offered a resolution, which was unanimously adopted at the late Convention of Judges at Albany, requesting the Legislature to amend the existing statutes so as to allow law schools only an equal period for the time spent in attendance at them, upon the terms of clerkship prescribed for other students by the Court of Appeals; and requires, besides, that graduates of schools, before they can apply for admission to the bar, shall be examined in the same manner as other applicants.

This contemplates the same change which we have considered so necessary in reforming our present system of medical education, viz., that our schools shall offer all the necessary facilities for a first-class education, but that the special privileges of granting a license to practise shall belong to an independent examining board. There seems to be a fair promise that this change for the better will be made in the study of the law; at all events the proper initiative seems to have been taken.

In the clerical profession the system of independent examinations has been carried out with good effect, and in spite of the privileges which the seminaries have of granting degrees, the various clerical boards are practically responsible for the fitness of the candidate. In almost all denominations, before the candidate is fairly admitted to orders, and takes his charge, he appears before a committee of clergymen, who take every pains to discover his fitness for the discharge of his future responsible offices. The opposition to the lay ministry, which of late years has been so decided and so widespread among the different denominations, had the best part of its foundation in a determination to preserve the intellectual power and the educational qualifications of the regular clerical profession. When we compare ourselves with the other liberal callings, and witness the jealous zeal which characterizes their determination to keep their standard of education up to the highest possible requirements of the age, we have need to feel ashamed of the apathy in our own ranks, at the indifference to the monopoly on the part of medical schools of all our educational interests, and at the quiet submission to all those demands which we know to be actuated by the smallest of motives and the most selfish of purposes.

We believe that the foundation of all reform in medical education rests mainly upon the enforcement of the two conditions, the necessity of which we have so frequently pointed out, viz., a proper preliminary education and an independent examining board. These two points are the *alpha* and *omega* of the requirements of the prospective practitioner, while the office of the medical college is merely to fill up the gap between the two. The opposition to these reasonable propositions comes very naturally from the colleges themselves, whose interest it seems to be to gain a reputation for large numbers of matriculants and a large graduating class. It is in the hope, however, that the time will eventually come when these propagating schools will care more for the quality than the quantity of the material which they may control, that we shall continue to agitate the utility of the reforms proposed.

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SWIMMING EXTRAORDINARY.—Captain Webb, said to be the son of a medical man, lately swam from London to Gravesend, a distance of twenty miles, without any artificial aid whatever. It is said that he proposed this month to swim from Dover to Calais, an undertaking which, if successful, would eclipse Paul Boyton's feat by considerable, and would probably be one of the most severe taxes of human stamina and endurance that has yet been recorded.

Reviews and Notices of Books.

CHOLERA: HOW TO PREVENT AND RESIST IT. By DR. MAX VON PETTENKOFER, Professor of Hygiene, University of Munich, Obermedicinalrath, President of the Sanitary Commission of the German Empire, etc. From the German. Translated (with Introduction and Appendix on the International Cholera Conference of Vienna) by THOMAS WHITESIDE HIME, A.B., M.B., etc.; Ex-royal Scholar Trin. Coll. Dub.; Lecturer on Obstetric Medicine and Diseases of Women and Children in the School of Medicine, Sheffield; Medical Officer to the Hospital for Women; Surgeon-Accoucheur to the Public Hospital and Dispensary; Fellow of the Obstetrical Society, London, etc. Revised by DR. VON PETTENKOFER. With Illustrations and a Chart. London: BAILLIÈRE, TINDALL & COX. Paris: BAILLIÈRE. Madrid: C. BAILLY-BAILLIÈRE. 1875.

THIS small volume presents to the reader the advantage over the German work of Pettenkofer that it contains a short article from Dr. Hime, as well as the conclusions arrived at by the Vienna Conference of July, 1874. It may be considered as a summary of the most recent reliable views with regard to cholera. Although some points concerning the characteristics of the disease and its treatment, which were considered as settled, still remain *sub judice*, yet our knowledge in this direction has advanced. The knowledge gained is also such as can be made of practical value in averting or diminishing the dangers of an epidemic.

How far the ground-water influences the existence or spread of cholera is as yet undecided. Pettenkofer states that "as in certain places the existence of typhoid fever exhibits a certain temporal dependence on the variations of the moisture of the soil, of the so-called 'ground-water,' in like manner it is probable that cholera is similarly dependent, though, owing to the fortunately less frequent prevalence of cholera, the relationship cannot be so regularly and satisfactorily proved as in the case of typhoid fever." One or more of the elements which favor *germination* seem to have long ago been regarded as connected with the spread of cholera, although the evolution of the idea belongs to later days. Mr. Barnes, surgeon in the Hon. East India Company's service, who had charge of the district of Jessore, in Bengal, from 1810 till 1822, wrote that "if the rain did not terminate till the end of September, and the floods subsided gradually during the month of October, the autumn season was free from extensive sickness; but if the rains broke up at the end of August, and the *waters sank rapidly* during September, the disease commenced its attack among the natives at the beginning of October, carrying death and desolation in its progress until about the middle of December, when the complaint became checked, and in a short time apparently extinct." The gradual fall of the waters might be regarded as unfavorable to germination by maintaining an excess of moisture in the soil, but the rapid sinking of them would leave a damp soil most favorable, under a burning sun, to vegetable life. "The extremes of drought and wet," writes Dr. Hime, "are alike unfavorable to the development of the cholera germ."

In the Introduction a tribute is paid to the extraordinary energy and skill with which Prof. von Pettenkofer has investigated this disease. Here also an explanation is afforded of the ground-water theory, and several experiments are given illustrative of the permeability of the earth to air and water. As is stated:

"Nothing can be more erroneous than the common idea that the atmosphere ends where the ground begins. The ground (using the term in its general acceptation) is not half so solid as it seems, and currents of gas and water circulate freely through almost any part of it except the most compact clay and rock."

From this is deduced the necessity of maintaining the soil as free from sewage pollution as may be, since air defiled by such impurities circulates freely through the ground, or rises as a poison into the superjacent atmosphere. At the same time, a filthy soil offers a favorable development to the germs of a pestilence.

As the Introduction to this volume is interesting, so is the Appendix, which consists of the conclusions arrived at by the International Sanitary Conference, which was held in Vienna, July, 1874.

The conclusions referring to the various features of cholera were adopted by vote, and are the expressions of opinion from deputies who represented twenty-one governments of the Old and New World. As might have been anticipated, while some points were unanimously adopted, with regard to others there was a well-marked difference of opinion. It may be said, nevertheless, that the sentiments were sufficiently in accord to indicate progress towards a gratifying unity of opinion concerning the nature and prevention of this scourge, which has been at once both a pestilence and a puzzle.

A Treatise on Cutaneous Medicine and Diseases of the Skin. By H. S. Purdon. London: Baillière, Tindall & Cox. 1875.

This work is composed of fugitive essays and lectures delivered by its author in the Belfast General Hospital. Its contents include a wide range, and in the twenty-three chapters very many affections of the skin are brought into notice. It is quite difficult to determine the exact worth of the book, as it contains almost nothing not known to persons well read in skin diseases, while the want of system in it is a drawback with the general reader. The manner of construction of the whole book, it must be confessed, is bad, and contributions like this, which are, we are sorry to say, too frequently put forward of late, should be treated according to their merits. It is evident by reading this book that the author is zealous in his love of the study of skin affections, yet it is clearly seen that his views are not accurate, and that he is given to careless or rather superficial thinking. He evidently reads copiously, but, judging from his writings, he does not clearly master what he reads; the result is that in this work we have a vast amount of crude knowledge derived from others, which is not well assimilated in his articles, so that in each chapter there is a painful lack of coherence in describing a subject, by which the author's own views are not well brought out, nor are those of others shown up by comparison. Then, again, in matters of theory there are evidences that the author does not clearly comprehend certain views, as we meet further on contradictions which would not have occurred had the idea been mastered. Indeed, the present is a bad specimen of book-making. The style is not clear, nor is the grammar faultless. The diseases described have already been treated of very well by other authors, and their reconsideration by Dr. Purdon is productive of no good. The plain fact which strikes a person who reads the book attentively is, that the author is a superficial observer, a loose thinker, and a man who has not the power to write a logical, terse article. In the present instance he evidently imagines that he is saying something of importance, but the difficulty with the reader will be to determine what he has said.

Progress of Medical Science.

On the Treatment of Uterine Fibroids by Ergot.—*The Medical Examiner* for July 1st contains two articles of considerable interest, with reference to Hildebrandt's method of treating fibroids of the uterus with ergot. One of these articles consists of an abstract of a paper, read before the American Medical Association, at Louisville, last May, by Dr. W. H. Byford. In this paper Byford discussed the ergot treatment on the basis of an analysis of 103 cases, collected by him, where this treatment had been pursued. His statistics are exceedingly favorable to the method of treatment under consideration, as appears from the following results: Twenty-three cases out of the whole number are reported cured; in thirty-eight more the tumors were diminished in size, and the hemorrhage and other disagreeable symptoms removed; nineteen of the remainder were benefited in that the hemorrhages and leucorrhœal discharges were relieved, while the size of the tumors remained unchanged. Only twenty-one out of the whole number of cases resisted the treatment entirely. Consequently the result of the treatment in eighty out of the one hundred and three cases was decidedly beneficial.

The ergot was administered both hypodermically and by the stomach, and in some instances injections were made into the cervix uteri or into the substance of the tumor itself. The objection to the internal use of the drug is the gastric irritability which is apt to be developed, whilst the hypodermic injections are liable to produce inflammation and suppuration. The frequency of these ill effects depends, to a certain extent, upon the form in which the ergot is used. Squibb's solid extract is recommended by the writer, both for subcutaneous injection and for administration by the stomach. This preparation is very similar to Wernich's formula, which is used by Hildebrandt. For hypodermic injections it is reduced with water, in the manner described by Squibb, so that each minim of the solution represents four grains of ergot in powder. From ten to twenty minims of this solution are injected once a day, or once in two days. If used internally, the solid extract is recommended to be given in pills, coated with gelatine. A pill of five grains is equivalent to thirty grains of crude ergot, and is administered two or three times a day. Painful contractions of the uterus are generally produced shortly after the administration of the ergot, and last for ten or twelve hours. Sometimes, however, the good effects of the drug are experienced without these painful symptoms being developed. The latter may also be somewhat alleviated, it is claimed, by means of the hydrate of chloral, which appears not to interfere with the remedial action of the ergot.

It is observed that the action of the drug upon fibrous tumors of the uterus may be evinced in three different ways: (1.) A gradual disintegration and resorption may be produced; (2.) the nutrition of the tumor may be so suddenly interrupted as to cause rapid disintegration and decomposition, followed by the discharge of the putrid contents, and (3.) finally the tumor may be partially or totally expelled from the cavity of the uterus without undergoing other change, the uterus being more or less inverted. Its removal can then readily be completed by a surgical operation.

In the same number of *The Medical Examiner* Dr. E. P. Allen reports a case of uterine fibroid treated by Hildebrandt's method, in which, on two occasions, the subcutaneous injections of ergot were followed by severe attacks of phlebitis. The tumor was of very large size, extending three and a half inches above the umbilicus, and was attended with profuse menstruation. At first the ergot was administered hypodermically in the form of Squibb's fluid extract. Fifteen minims in an equal quantity of water were injected in the region of the umbilicus, and the dose was soon increased to twenty drops. The injections caused considerable pain, with some redness and tumefaction. The effect, however, during the first few weeks was decidedly favorable. The menses ceased to be profuse, and their duration was diminished, while the circumference of the abdomen, at its most prominent part, was reduced from thirty-six to thirty-two inches. Thirty injections had been given, when severe pain in the left side and hip, together with marked febrile symptoms, interrupted the treatment. The pain and fever increased, and an inflammatory process gradually involved the whole of the left leg. The process differed in no respect from an ordinary case of phlegmasia dolens, and lasted for some three weeks.

Three months after the ergot was stopped the menses had again become profuse, and the tumor had greatly increased in size. The fluid extract of ergot was then given by the mouth for some time, with the effect of arresting the hemorrhage and of checking the growth of the tumor. But finally the stomach became too irritable to tolerate the medicine, and the patient was obliged to discontinue it. The ergot was not resumed for a number of months, but the tumor continuing to enlarge, and the symptoms becoming very distressing, the patient was at length induced to have recourse again to the subcutaneous injections. This time Squibb's solid extract was used, in a watery solution, which appeared to cause less irritation than the fluid extract. The injections were made near the umbilicus, as at first, but more on the right side. The strength of the solution injected was such that one drop represented a grain of ergot. The injections were used for eight weeks, with the same good effect as in the first instance, though the relief was produced somewhat less rapidly. On increasing the strength of the solution so much irritation was caused as to produce an abscess. This having healed the injections were continued (of the same strength as the first) on the right side, until symptoms again occurred of a commencing phlebitis. The veins became enlarged and painful, and the inflammation proceeded rapidly downward, and culminated in an attack on the right side, precisely similar to the previous one on the left. After recovering from this attack the hypodermic injections were continued for a short time in the arm without ill effect. As to the immediate cause of the attacks of phlebitis no positive opinion is expressed.

Therapeutic Observations on the Action of Eserine in Chorea.—M. Bouchut has undertaken a series of investigations with regard to the action of eserine—the alkaloid of Calabar bean. His conclusions are summed up as follows:—When eserine is administered to children, in moderate doses, it causes a diminution of muscular contractility, though the contractility of the small blood-vessels is increased.

Eserine, or its sulphate, may be administered either hypodermically or by the mouth; in the latter case it should be given on an empty stomach.

In the form of subcutaneous injections eserine, or its sulphate, may be given in doses of from three to five milligrammes, beyond which it is not regarded as safe to go.

The action of the drug is more energetic when administered hypodermically, and a less dose by one-half is required than when given by the stomach.

The action of the alkaloid continues for from one to two hours, when it becomes completely exhausted, and the dose may be repeated; so that in the course of a day fifteen to twenty milligrammes may be given in three or four doses.

When administered to children, eserine produces its effect in a few minutes; more rapidly when injected subcutaneously than when given by the stomach.

Pallor is generally induced, the pulse becomes wiry; afterwards it is sometimes diminished in frequency.

Nearly all of the children treated by eserine showed symptoms of distress, with loud screaming, epigastric pain, gastralgia, nausea, and expectoration of a stringy fluid.

Sometimes the drug caused bilious vomiting.

No alteration of the temperature was observed.

Administered in the above doses, the alkaloid caused neither colic nor diarrhœa.

When given internally, eserine has no effect upon the pupil; the latter is neither dilated nor contracted.

Frequently considerable transpiration of the face and body is produced.

Paresis of the diaphragm, or its temporary paralysis even, is the most serious and painful of the symptoms produced after the subcutaneous injection of five milligrammes of the drug.

As soon as the alkaloid has exhausted its effect, the child recovers its normal condition, and the action of the drug does not appear to be followed by any after-effects.

When used in the above-mentioned doses, eserine does not appear in the urine.

When employed for the treatment of chorea, eserine arrests the movements during the continuance of its action, and little by little moderates them in the intervals, so that on an average the disease is cured in ten days.

The effect of the remedy is more certain when administered subcutaneously than when given by the stomach.

The writer has never seen tremulousness nor convulsions produced by the remedy, and thinks it probable that these accidents are only provoked by the drug in very large and toxical doses.—*Bulletin de Thérapeutique, Gazette Médicale de Paris*, June 12th, 1875.

Remarkable Slowness of the Pulse, with Fatty Degeneration of the Heart.—Two cases of extreme slowness of the pulse were presented by Cornil and Malassez before the Société de Biologie, and are reported in the *Gazette Hebdom. de Méd. et de Chirur.*, of 11th June. In Cornil's case, the pulse was found to beat 24 times per minute at the first visit, while later it was only 14. Every quarter of an hour attacks of dyspnœa occurred, which terminated in syncope, which latter was associated with epileptiform movements. The attacks continued until death. At the autopsy complete fatty degeneration of the heart was found, but no valvular lesions. Malassez's case is described as presenting similar symptoms to those of the above. The pulse was 24 per minute. Sphygmographic tracings were presented in connection with the case.

A case of similar character is described by Dr. J. R. Leaming, in his paper on "Significance of Disturbed Action and Functional Murmurs of the Heart," which he lately read before the New York Academy of Medicine. In this case the pulse was 25 per minute, and complete intermissions occurred of from 13 to 16 seconds' duration. There were also epileptiform attacks, which occurred during the intermissions of the pulse as well as at other times. The attacks were afterwards relieved, and the patient died some two years later. At *post-mortem* examination the heart was found completely adherent to the pericardium; there was insufficiency of the aortic valves, and marked stenosis of the mitral; the heart was very much hypertrophied. No mention is made of fatty degeneration being found.

NYSTAGMUS AMONG MINERS.—Dr. Charles Bell Taylor, surgeon to the Nottingham and Midland Eye Infirmary, England, says that during the past few years he has noticed a peculiar malady among workers in collieries, and which he calls "miners' nystagmus," from the peculiar oscillating motions of the eyeball, which are characteristic of the disease, and from the fact that he has only observed it among adults, workers in the coal-pits, and independent of other ocular defects.

It was formerly supposed that nystagmus was incurable, always developed itself during infancy, and was caused either by imperfect nervous perception, or structural changes in the transparent media of the eyeball. In miners' nystagmus, however, the disease is developed in adults and aged persons previously healthy, is not accompanied by disease of the nerve or structural change of the eyeball, is usually curable, and is, as a rule, only to be noticed when the patient attempts fixation, especially in a stooping position. Dr. Taylor considers the affection analogous to writers' cramp, pianists' and telegraphists' cramp, or the similar affection of the gastrocnemii sometimes observed in ballet-dancers. It may be developed in any or all of the muscles supplied by the third nerve, and is clearly caused by the overtaxing of these organs.

The patient makes a great and sustained effort to see in an imperfect light; the muscles engaged in the accommodative strain are overburdened, in course of time give way, and at last, whenever called upon, just as in the analogous cases cited above, become, as it were, agitated and fluttered, escape from the control of the will, and perform irregular motions. Nystagmus generally persists so long as its cause remains, and, if developed in childhood, may continue even after its removal; but in "miner's nystagmus," as a rule, change of occupation and working in a good light are all that is necessary to effect a cure. Dr. Taylor says that it is worthy of note that the men are very apt to attribute their imperfect sight to one or other of the accidents which are so frequent among workmen underground. This is natural, of course, and acquires importance from a medico-legal point of view; but hitherto he has been unable to satisfy himself that in any case the accident had caused the affection, though readily inclined to grant that the nervous commotion and depressing influences of such injuries may aggravate an already existing disease, specially one so apt to be intensified by any nervous excitement.—*The Lancet*, June 12, 1875.

SCABIES CRUSTOSA.—Although it is not very uncommon for crusts to form in old cases of scabies, especially where they are protected from external violence, it is rare for them to form on the more exposed parts of the body. In this respect, as well as in the rapid growth and large size of the crusts, the inveterate cases described by Bergh in the *Hospitals Tidende*, 20–3, 1874, are of interest. In two cases the crusts were situated on the forearms and waist, and the animals, instead of spreading over the body, as they often do, limited themselves to these particular parts. The author says it is not the itch-mites which, by their boring operations, produce the thickening of the skin, but the itching thus produced causes the patient to scratch and irritate the skin, which thus is inflamed and becomes thickened. The Norwegian animals spread in the crusts in colonies, and as one colony dies out its place is occupied by other colonies in succession.

A remarkable case is mentioned, where the patient, a man twenty-four years of age, had had the disease sixteen years, and with him the nails of the fingers and toes had become hypertrophied, and hooked like the claws of animals. According to the story of the patient, a hard mass was first formed under the nails of the fingers, and then of the toes. As these growths increased in size they gradually forced the nails out of position, and the latter then began to assume the claw-like form and size they presented when first seen by the doctor. Some years after the nails began to be affected the formation of crusts commenced in different places on the body. The growth of the nails was very rapid, and he was obliged to cut off as much as a quarter of an inch every two weeks. The cutting was somewhat painful, and occasionally excited bleeding from the matrix.

Under the microscope the crusts from the skin were found to consist of epidermoid cells, saturated with, and held together by, transuded matter and a molecular substance, mostly of a fatty nature, and mixed here and there with blood, which had given the crusts a yellowish color. Throughout their whole thickness they were filled with enormous quantities of excrement, egg-shells, eggs in all stages of development, the skins and other remains of the insects, and insects in various stages of development. Sections from the nails were also examined under the microscope, and found to consist of an axial portion of very well-preserved nail-substance, surrounded by a crust formation similar to that of the skin, though the passages and cavities in them were smaller, and the insect detritus was also much less in quantity. According to the author, the parasite which produces this disease is the ordinary itch-mite, the sarcoptes hominis, and differs from those commonly seen only in size.

At first the patient was treated with potash baths, and then a solution of carbolic acid, in the strength of 1 to 50, was applied to the entire surface. After the use of seven baths all the scabs had fallen off, and the nails, especially on the toes, had become smaller. A liniment of styrax was then used alternately with the above medication. The patient was under treatment for eighty days, but at length was regarded as entirely relieved from his trouble.

AN OPERATION FOR THE RADICAL CURE OF HERNIA.—Dr. Gussenbauer quotes from the *Memorabilien* this account of Dr. M. Langenbeck's mode of treating hernia. He had observed that the exudation following a subcutaneous restoration of a strangulated hernia was often sufficient to effect a firm closure of the hernial orifice, so that a truss was no longer needed. Accordingly he has adopted the following method, which he has put in practice in nine cases of hernia, as yet unstrangulated, with most favorable results. He forms from the skin of the thigh a tongue-shaped flap of 2½ to 3 fingers' breadth at the base, and about two inches in length. This is then pushed without tension into the hernial canal, which has been freshened by the previous introduction of the index finger. The flap is secured in its place by sutures, the whole wound is filled with lint, and cold is applied for two or three days. At the end of this time the wound is cleansed, and pressure applied by a sand-bag for a few days more. The patients were able to leave their beds at the end of ten days or a fortnight, wearing a truss until the skin was healed. Some patients treated in this way, when examined after three and six months, during which they had worn no truss, showed a firm closure of the canal, and there was no impulse communicated on coughing.—*Rundschau*, Feb. 28, 1875.

Syphilis as a Cause of Phthisis.—Whether phthisis is ever caused by syphilis has long been a disputed question among physicians. Dr. N. W. Thoresen has investigated the subject very thoroughly, and his memoir obtained the prize of the Medical Society of Christiania.

The history of three hundred and eighteen syphilitic parents is given, as well as that of all their children, up to the time of publication of his memoir.

It was often found that a syphilitic mother gave birth to a healthy child, which was nursed by her and which remained healthy, and if the mother were not treated the next child might have marked hereditary syphilis, or present other signs of ill health. In some cases several healthy children were successively born of such a mother, who then gave birth to syphilitic children. Others had syphilitic children, and then gave birth to perfectly healthy ones. In no case, however, could the origin of phthisis be traced to syphilis in the parents. It was invariably found that where the children had tubercles there was a history of this disease in their ancestors.

Of the whole number of syphilitic individuals examined. there were only sixteen who had tuberculosis, and there were none among these in which tuberculosis was not found to have existed as a family disease.

In the nine tuberculous individuals who became syphilitic, the course of the latter disease was very disastrous. The condition of those syphilitic individuals (twelve in number) who belonged to a tuberculous race, but who had not themselves had tubercles, was carefully followed, and though most of them had severe syphilitic accidents, none of them had any chest affections, and no other manifestations of tuberculosis were discovered.

The author concludes that syphilis has no causal relation whatever to tuberculosis, though the latter dyscrasia renders the prognosis of syphilis bad, just as any other depressing condition would.—*Norsk Mag. f. Læg.*, April, 1875.

The Spleen in Infectious Diseases.—In the *Berl. klin. Wochenschrift* for June 21, 1875, we find a notice of a pamphlet by Prof. Botkin, of St. Petersburg, on The Contractility of the Spleen, and The Relation of Infection to the Spleen, Liver, Kidneys, and Heart. These two essays were based upon clinical experience. As it was found from experiments performed on animals that irritation of the splenic nerves by electricity caused a contraction of the spleen, so our author, in cases of leukæmia, typhoid, epidemic gastro-enteritis, intermittent fever, and other diseases in the human subject, where the spleen was enlarged, has distinctly observed a sudden diminution of the size of that organ under the influence of electricity applied through the abdominal walls, of forced percussion, of palpation, and of mental emotions. Hence he infers the existence in the human subject of a central nervous apparatus, which, through the medium of the contractile elements of the vessels and the muscles of the proper substance of the spleen, influences the dimensions of the latter. In some cases of faradization of the spleen, simultaneously with its contraction, our author witnessed an increase in the size of the liver, evidently due to the access of blood to it which had been driven out of the other organ; and again, in cases of leukæmia, after the size of the spleen had been reduced by faradization, the number of white corpuscles in the blood increased, indicating that the spleen had discharged a part of its contents. Botkin then finds the general condition of the patient improved by this treatment, and assumes that one of the two important functions of the spleen, viz., the conversion of white blood corpuscles into red, is arrested by those conditions, which, like its enlargement, interfere with the circulation of blood in it, and that, morever, there is greater destruction of the red corpuscles from their longer retention. He therefore recommends faradization of the spleen as an important remedy, not only in leukæmia but in enlargements of it from other causes. He adds the history of three cases of leukæmia where this treatment was followed by a diminution of several centimetres in the size of the spleen, and improvement in the general condition of the patients. The enlarged lymphatic glands were also reduced in size.

Botkin alludes to the combination of various infectious diseases in the same individual, such as typhoid or typhus fever with relapsing fever, and also the influence exerted upon various local diseases by the prevalence or approach of an epidemic of an acute infectious character, especially such as affects the parenchymatous organs—the liver, kidneys, and spleen. He believes that persistent acute infectious diseases are a most fruitful source of chronic inflammations of the liver and kidneys, and of tumors of the spleen. Even when recovery seems to have been complete, he thinks we can often trace the connection of a cirrhosis of the liver, chronic Bright's disease, chronic enlargement of the spleen, and of leukæmia, to a former attack of cholera, typhoid or relapsing fever. Finally, he believes that a number of cases of fatty dilatation of the heart. without valvular disease, may be regarded as relics of former attacks of some infectious disease.

A Case of Lymphorrhagia.—The following case is reported by Prof. Petters. For four years a woman of twenty-three had noticed a white, wart-like prominence on the left labium majus, which gave issue to a milky fluid, the flow persisting in spite of various remedies. This was soon complicated by swelling of the left labium and thigh. The patient married a year afterwards. During the ensuing pregnancy the discharge ceased, to recur again after convalescence from an abortion, which occurred at three months, and was followed by peritonitis. During its cessation the inguinal region and left thigh became more swollen. On admission the left thigh measured more than the right; the glands of the left groin were enlarged, and the labium of the same side presented a swelling as large as a pigeon's egg, studded with warty knots, which secreted a milky alkaline fluid, containing albuminate of soda, red blood corpuscles, numerous lymph corpuscles, and free fat, but no sugar and no urea. The quantity amounted sometimes to nearly six ounces in an hour and a half. The diagnosis of lymphorrhagia was confirmed by the post-mortem, the patient's death occurring rather suddenly with febrile symptoms and lymphangitis. There was found diffuse peritonitis, with purulent foci in the ovaries and tubes. The inguinal glands were much enlarged, and contained cavities filled with lymph. Around them were also found extensive spaces with smooth walls, likewise filled with lymph. The lymphatics of the left thigh were dilated, and the spleen enlarged.—*Prag Vjhrschr.*, cxxv. p. 69, 1875.—*Schmidt's Jahrb.*, 160, ii. June 17, 1875.

Correspondence.

HOSPITAL MANAGEMENT.

To the Editor of The Medical Record.

Sir:—In the discussion of any subject involving a principle, especially when the principle is not settled, there is always, I take it, room for suggestion. The leader on Hospital Management was one which was timely, and in the main I agree to the propositions laid down. The necessity for harmonious action on the part of the executive and the medical boards is, no doubt, the *sine qua non* of the prosperity of any hospital; but how this prosperity is best insured, how the harmonious understanding should be best preserved, is, to my mind, still a somewhat open question. Your recommendation that only the medical profession should be represented in the medical board, is well enough; but even this might lead to more or less trouble. There was such a representation in the board of managers of the Presbyterian Hospital; but, far from conserving the different interests of the institution, the opposite was the case. That same representative had a great deal to do with all the trouble with which the profession have lately become so familiar.

The difficulty was in the want of a proper understanding between the medical element of the managing board and the medical board proper, and this I imagine would be a chronic objection to the plan proposed in your recent editorial. It would hardly be possible for any medical board to bow submissively to the decision of one or two medical men, whose only right and fitness to decide ethical questions rested in the fact of their being members of the board of managers. There is, of course, no objection to having medical men members of the board of managers; but in that capacity they should not pretend to control the actions or construe the motives of their brethren of the staff. The medical staff should be able and competent to speak for itself, to plead its own cause, and to act in accordance with the dictates of its own judgment. In view of this, would it not be equally well to have the entire medical board a part of the board of managers, or at least be entitled to a seat in the board when any question bearing upon the interests of the hospital should come up? As they have only one interest in common—the good of the hospital—there would not be such a chance for quarrelling and such opportunities for misunderstandings as are witnessed under the present system.

I know there is a regulation in many hospitals providing for consultation on the part of the managers with the medical board; but, as you truly say, this is a rule more honored in its breach than its observance. The staff, on all such occasions, should consider it their right, and not a mere act of forced courtesy. The managers, it is true, should have the power to appoint these medical men; but when once appointed they should have all the privileges of attendance upon the board which belong to members of a society at stated meetings. The medical staff should hold office during good behavior, and should not be dropped unless for good cause, cause assigned in open meeting. Any member of the staff should run no more risk of being expelled or "voted out"—which is now the fashionable way of putting it—than he should be of expulsion from any medical society.

I fail to see how a fair and manly course by the managers, when any charge is brought against a medical man, should be productive of anything but benefit to all parties concerned. There would at least be a good opportunity offered for a free discussion of the merits of any given case, and any member of the medical board would not then be left out in the cold without due notice. It is a small matter, perhaps, to vote a man out, but the victim is hardly prepared to be satisfied with the verdict, unless he has an opportunity for putting in a defence in the trial. I do not see how any reasonable objection should be made against such a proceeding.

The trouble with the Presbyterian Hospital had its principal cause in the mismanagement of a party who was trusted with the functions of executive officer of this hospital. As very often happens, a spirit of domineering began to show itself, which was resented by the majority of the medical staff. In the main this interference scarcely amounted to more than petty annoyances; but the continual dropping wore away patience, and a rupture was the result. The questions in dispute were more or less of a purely medical character, but the judgment of members of the medical staff amounted to nothing in comparison with the fiat of the executive officer. I do not think it is necessary to make explicit charges; it is sufficient to know the facts of the case, which can be substantiated by members of the medical board. Complaints were made of the obnoxious person to the board of managers, but failed to have the desired effect of changing the method of management, and there the matter rested until it became a question whether it were better to get clear of the defendant or the plaintiffs. Everybody knows the result. Medical men could be obtained so much easier to fill vacant places than executive officers, that the easiest way to get out of a difficulty was to "vote out" the obnoxious ones. The wisdom of this course of action is seen by the prompt manner in which the vacant places on the staff were filled. Now, I contend, if the medical board were allowed a membership of the board of managers, this difficulty would not have occurred. There would have been a candid and impartial examination of the point at issue, and there would have been no occasion for the disgraceful wire-pulling which has made the Presbyterian Hospital affair a byword of reproach for the profession of the country.

An Outsider.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from August 15th, 1875, to August 21st, 1875.

Cooper, Geo. E., Surgeon.—Leave of absence extended fifteen days. S. O. 166, A. G. O., August 18, 1875.

Sternberg, Geo. M., Assistant Surgeon.—Granted leave of absence for one month on surgeon's certificate of disability. S. O. 151, Depart. of the Gulf, August 14, 1875.

Forwood, Wm. H., Assistant Surgeon.—Leave of absence extended two months. S. O. 46, Hdqrs. of the Army, Aug. 12, 1875.

Newlands, W. L., Assistant Surgeon.—Assigned to duty at Camp Halleck, Nev. S. O. 87, Depart. of California, Aug. 6, 1875.

NAVY NEWS.

August 13th.

Ambler, J. M., Assistant Surgeon.—Ordered to the *Minnesota.*

Martin, Edwin M., Assistant Surgeon.—Detached from the Navy Yard, and ordered to the *Intrepid.*

McMurtrie, D., Surgeon.—Has reported his return home from the Navy Yard, at New York, and ordered to the *Intrepid.*

August 17th.

Smith, Howard, Assistant Surgeon.—Is ordered to the Naval Hospital, New York.

MARINE HOSPITAL SERVICE.

Smith, Orsamus, Surgeon.—Transferred from Louisville, Ky., to Mobile, Ala., August 4. Surgeon Smith is directed to open the Marine Hospital at that port as a Government Hospital, Class I.

Muhlenberg, Henry E., Jr., Assistant Surgeon.—Relieved from temporary duty at Chelsea, Mass., and assigned to Philadelphia, Pa.

Robinson, Samuel Q., Assistant Surgeon.—(Passed the Board of Medical Examiners July 20–25.) Appointed Assistant Surgeon, July 29, and assigned to duty at Chelsea, Mass., July 31.

Doering, Edward J., Assistant Surgeon.—(Passed the Board of Medical Examiners July 20–25.) Appointed Assistant Surgeon, July 29, and assigned to duty at San Francisco, Cal., July 31.

Chipman, W. R., Hospital Interne.—Appointed and assigned to duty at Chelsea, Mass., July 30.

Medical Items and News.

"Medicus" will secure the publication of his letter if he will send us his name as a guarantee of good faith. No communications to The Record should be anonymous to the editor.

Prize of the Geneva Convention.—The prize of 2,000 thalers, for the best work in the Geneva Convention, has been awarded to Professor Lüder, of Erlangen.

Cholera in Syria.—The *Vakit*, a Turkish newspaper, published at Constantinople, states that the cholera in Syria is considerably increasing. According to it, during the past week, the number of cases reached 500, a great part of which were fatal.

The American Academy of Dental Science will hold its eighth annual meeting in Boston, on Monday, September 27th, at 10 a.m. The annual address will be delivered by Dr. Robert Arthur, of Baltimore.

The Fecundity Relative to Marriages in Europe.—The average number of children by marriage varies from 4.73 to 3.07. Russia stands at the head with the number 4.73; France last with 3.07. The ratio of fecundity is as follows: Russia, Spain, Scotland, Ireland, Italy, Hungary, Norway, Sweden, Wurtemberg, Prussia, Holland, Austria, Belgium, England, Saxony, Denmark, Bavaria, France.

The reason for the small increase in the French population cannot be found either in the period of marriages nor in their number, nor in the mortality of infants or adults; but it is solely from the limited (and voluntary) fecundity of marriages.

Unveiling of Prof. Hyrtl's Bust.—By a resolution of the College of Physicians of Vienna, the bust of Prof. Hyrtl, the anatomist, has been placed in the principal hall of the university.

The ceremony of unveiling took place on the 22d of June, at which Hyrtl was present.

Death of Mr. John Churchill.—This eminent medical publisher, who for many years has been most intimately associated with the members of the medical profession by the publication of their works, died at Tunbridge Wells, on the 3d instant, within a few weeks of completing his seventy-fourth year.

Diminution of Doctors in France.—M. Paul Bert has stated in the National Assembly, that the total number of practitioners has diminished in France from 17,192, in 1866, to 15,429, in 1872. It is said that the religious sisterhoods have by their numbers and their habit of practising among the middle and lower classes, almost unrestrained, become formidable opponents of educated physicians, and together with the low rate of compensation and high price of living, deter men from entering the profession.

Blue Urine.—In a case recently described to the Société de Biologie by M. A. Robin, a curious blue tint of urine corresponded to attacks of lumbar pain. The urine was scanty, not actually blue when passed, but on standing a sediment fell in which were many deep-blue granules, distinct under the microscope, showing no trace of crystallization. The nuclei of cells of bladder epithelium were also stained blue. Urea and uric acid were lessened in amount. The blue substance was a little soluble in water, hardly soluble in alcohol or ether, insoluble in chloroform or alkalies, soluble in sulphuric acid, with a tint at first rose, then reddish-orange; soluble in hydrochloric acid, with a magnificent carmine color. It corresponds closely with the cyano-urine of Braconnet, who believed it to be a transformation of uric acid less oxidized than urea.

The Practitioner has issued to its subscribers the first of a series of questions relating to the treatment of some diseases, with the intention of tabulating them and publishing the results. In the present instance the disease in question is quinsy, and the questions are as follow: What are the drugs you generally prescribe in this disease? What preparations of these drugs, and what doses do you generally prescribe? What local treatment do you employ? What diet and regimen? How is your choice of drugs and line of treatment modified by the following circumstances:—(*a*) Constitution of patient (strumous, rheumatic, gouty, etc.). (*b*) Age and sex. (*c*) Symptoms—(1.) Pain in throat; (2.) swelling in throat; (3.) pains in limbs; (4.) constipation? To what extent do you resort to surgical influence? The blank form has a postage stamp affixed, and is addressed to The Editor of *The Practitioner*, 23 Somerset Street, Portman Square, London, W.

Medical Schools in France.—The French Government have adopted a law which permits the founding of medical schools by private enterprise. It is expected that the competition between the new schools, thus organized, and the old and privileged bodies will result in great improvement in the methods of teaching. The law does not grant those schools licensing powers, and the examination for the granting of the degree is still, as before, under the control of the government. Schools have been organized in Nancy and Lyons, under the provisions of the recent law, and extensive preparations have been made for the course, which is to open in November.

Original Lectures.

COMMON SENSE IN THE SICK-ROOM.

A LECTURE DELIVERED AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE,

By A. B. CROSBY, M.D.,

PROF. OF ANATOMY, ETC.

GENTLEMEN:—I now ask your attention to what may be called "*common sense* in the sick-room." There are certain incidental matters pertaining to the sick-room which not only contribute to the comfort of the patient, but have very much to do with the favorable or unfavorable termination of the case, and these elements are so absolutely suggested by common sense, that there is no impropriety in using this term as a text for the present lecture.

Now there are certain elements of hygiene which it is very important that we should observe—whether the sick-room contains a surgical or medical case—if we would reasonably expect to obtain the best possible results from treatment. In the first place the

TEMPERATURE

should ordinarily range from 65° to 70° F., and this should not be a mere matter of guess-work, but should be ascertained by the thermometer. If the temperature is permitted to average much higher than this, all febrile disturbances will very likely be aggravated; and if the average is much lower, the patient in ordinary cases runs some risk of getting a chill, although, very many times he may remain with safety in a room having a lower temperature, providing he is furnished with a plentiful supply of blankets.

SELECTION, PREPARATION, AND FURNITURE OF THE ROOM.

The room which is selected for a sick-room should be as far removed as possible from those ordinarily occupied by the family, in order that the patient may have the benefit of perfect quiet. It should be large, airy, well lighted, and, if possible, should have a sunny exposure.

The *wall* of the sick-room is a pretty important matter to the patient. If it is covered with one of those dreadfully variegated papers, which, alas; are regarded as ornamental, it will be found, especially if the patient is suffering from any disease in which there is abnormal exaltation of the brain, that it is a source of great annoyance, and may even be positively injurious. For, as his eyes run over these pictures, he will fancy that he sees images of various kinds, such as angels and demons alternating; indeed these figures will assume every conceivable form, and he becomes thoroughly worried in the attempt to disentangle the confusion.

The paper covering the wall should have a uniform, neutral tint, such as a light green, a delicate buff or a very delicate slate color, a light green, perhaps, is as agreeable to the eyes as any color that can be selected, and it rests the eyes with a refreshing monotony. Such a uniform tint tends to "healthy stupidity," and this leads to repose. The *floor* of the apartment should engage your attention.

The model sick-room should never be carpeted, but ordinarily should have a hard-wood floor, and this should be oiled and varnished. Upon such a floor may be spread as many pieces of carpeting, rugs, and mats as are desirable. These may be placed in front of the bed, over the parts which the nurse traverses while performing his or her duties, at the doors, etc. Each morning, these can be quietly slid along the floor, taken out, and be thoroughly shaken and aired. After they are removed, the floor can be wiped off with a damp cloth or soft brush, and when dry, the rugs, etc., may be replaced.

If the floor is managed in this manner, what was known among the older writers as the *materies morbi*, certainly is not likely to accumulate, and that is an essential item of consideration in the management of the sick-room. The *windows* should also engage your attention. These should be so arranged as to admit abundance of light. Light is a nominal stimulus to the human body, and we have no good health without it; you cannot grow healthy cabbages in a dark cellar, nor can you any more easily cure invalids without the influence of sunlight. There are some acute diseases, during the progress of which it may be necessary to temper the light, but it should never be entirely shut out, for if you do you remove from the body one of its important natural stimuli.

The windows never should be surrounded by tapestry or decorations of any kind that are made of woollen stuff. A plain white shade is all that is requisite to temper the light and cut off outside objects from the patient's view, and the window-frame should be free from lambrequins, hangings, etc., which may become impregnated with the germs of disease.

CLEANLINESS.

It may seem absurd to you that I mention cleanliness as an essential element in a sick-room, and insist that it is one of the things which you should bring under your personal inspection, but I suspect that it is far less frequently seen in the sick-room than even godliness itself, although we have eminent authority for placing it *next* to godliness.

The average housekeeper is very apt to make a good show, hence covers the bed with a clean counterpane, which may be like a "whited sepulchre," within are "deadmen's bones;" and it is true, in very many instances that absolute cleanliness will not be maintained unless the physician himself makes an inspection of the details. Your patient may live in a fine house, belong to an "old family," one regarded as irreproachable in respect to cleanliness, and yet a sanitary inspector may find many hygienic errors to be corrected. Now, if the floor is not covered with a carpet, the physician can very easily determine whether it is clean or not; but if carpeted, it is altogether probable that a considerable amount of dirt could be found if the carpet were removed. Next you will observe what condition the bed itself is in. I am well aware that it is an easy matter to place a neat, clean sham over the pillow, and a clean spread over the ordinary covering, just before the doctor is admitted, so that the bed may have the distinguished appearance of cleanliness; but it is not a difficult matter to turn these aside sufficient to enable you to determine for yourselves whether the real covering of the bed and pillows are clean or not, and your examination can be conducted delicately without giving offence or even being observed. In a majority of cases, changing the bed-linen once or twice a week is not sufficient. When a person is confined to the bed, especially with any febrile disorder, at least one clean sheet should be placed upon the bed each day.

This may be the upper one, and it may be used as an under sheet the following day, if it has not become soiled. The pillow-cases should be changed equally as often. If the patient is suffering from any of the severer forms of acute febrile disease, such as scarlatina, typhoid fever, etc., or from a disease in which there is any tendency to septic influences, an immense benefit will be derived from changing the bed throughout every day.

IMPROVISED STRETCHER.

Suppose, now, that your patient has received some severe injury, or is suffering from some disease which renders it desirable that his bed should be changed daily, or even oftener, how can it be done with the least inconvenience to him? If there are two beds in the room, one may be rolled close alongside the other, and then the patient be lifted from one to the other; and it is a good plan to allow him to occupy one bed at night and the other during the daytime. This is especially beneficial when there is any tendency to septic disease, or the patient is severely sick with some febrile disorder, for it gives the attendants an opportunity to remove all the bedding into another room or other convenient place, where it may be shaken and thoroughly aired so that when it is again used it will be entirely refreshed. All this can be done without annoying the patient, even though he is extremely sick or suffering from a severe injury.

But it may be said that moving a patient so much, who is extremely sick, is of itself objectionable. This, however, is not a valid objection, for the reason that it can be done without inconvenience to any patient. If there is a condition present known as hyperinosis, such as is frequently seen in puerperal women, there may be an objection to moving the patient in an upright posture, or even permitting her to assume such a posture, lest embolism or thrombosis occur suddenly and terminate life; but such a person can be moved with perfect safety while kept in the horizontal posture, and even carried from one room to another if desirable.

Now the means for moving such patients from one place to another can be found about any house, especially in the country, and I have succeeded in obtaining all the materials necessary for this purpose even in a medical college. What I wish to do is to improvise a *stretcher*, and for that purpose all that is necessary is a strong sheet or blanket as long as the patient, two rods of the same length of the sheet and an inch or more in diameter. If you are in the country you certainly can find rake-handles, and they answer the purpose as well as anything that can be used. In order to move a person easily, four assistants are necessary, who are to stand, two on each side of the sheet and *exactly* opposite each other.

Let us suppose, now, that the sheet upon which this gentleman is lying is the one to be made into a stretcher; you will place one of the poles close to the edge of it, and then roll the sheet over it very tightly up to perhaps within six or eight inches of the body. It does not require strong rods at all for this purpose, but the special point is to draw the sheet out smoothly from the patient while you are rolling the stick up inside of it. The opposite rod is adjusted in the same manner. When every thing is ready the assistants should grasp the rod firmly with their hands placed about two feet apart, and, as near as possible, directly opposite each other, so that as they lift, and at the same time draw against each other, the sheet will be supported at exactly opposite points. Now direct the assistants to first drag strongly against each other and then lift, and keep constantly pulling against each other as they move along. Such a stretcher can be easily improvised, and affords a means by which a patient can be moved without annoyance. If the patient whom you are moving happens to have a fracture, unless the precaution is exercised of directing one assistant to grasp the rod with his hands exactly opposite those of the assistant upon the opposite side, you may disturb the broken bones in the act of moving.

If you wish to move a man who has accidentally received an injury, any distance, a stretcher can be improvised in a similar manner, by using a blanket and a couple of poles, such as a couple of strong saplings would make, fastening them in the blanket with stitches of twine or strong thread, and then placing a forked stick between the handles close up to the blanket, of such length as will put it upon the stretch. If the number of bearers is limited to two, and they desire to assist their arms, it can be done by fastening a strap to the handles long enough to pass up over the shoulders.

There is one precaution that the bearers should always exercise, and that is, to break steps while walking. If the bearer in front steps off with the right foot, the bearer behind should advance the left foot first.

All of this may appear to you like an insignificant matter, but it not infrequently happens that the comfort of your patient, the rapidity of his recovery, and, it may be, the recovery itself, will materially depend upon your ability to devise a plan for moving him from one bed to another without annoyance, and while in the horizontal posture. In ordinary cases of sickness, one bed can be brought to the side of another and the patient slid from one to the other, or he may be lifted across in the sheet; but where persons are very much debilitated or suffering from a severe injury, they may not be able to endure the fatigue which even such slight movements will subject them to. In such cases the means just described may be resorted to with the greatest advantage.

MANAGEMENT OF THE DEJECTIONS.

There is no single point which should so thoroughly engage the attention of the physician as the care of the dejections of the patient. In many instances it is necessary for the physician to inspect the passages from the bowels, and unless you give proper directions regarding the manner in which they should be kept, you will find, much to the annoyance of every one, that they have been quietly slipped into some closet or room immediately adjoining the sick-room, or some other equally unsuitable place. Such safe-keeping, however, hardly comports with a proper degree of cleanliness, and you should, therefore, give special directions, in case it is desirable that the dejections should be preserved until your next visit, that they shall be, if possible, carried out of the house, or at least that they should be carried into some out-room or bath-room in which a window is constantly open.

In addition, you may observe some preliminary precautions, in cases of dysentery, typhoid fever, or where a septic condition is present; in short, all those cases in which you wish to destroy the odor immediately, as well as any organic putrefactive matter which may be present in the dejections by employing some disinfectant.

For this purpose I know of no substance that acts more promptly and efficiently than permanganate of potash.

A solution of the strength of one grain to the ounce of water, is sufficiently strong, and a few ounces of this liquid poured into the vessel that is to receive the discharges, will correct the most offensive odor in a very short time.

You will recollect that permanganate of potash is exceedingly rich in oxygen, and when it comes in contact with organic material, especially in a state of putrefaction, it becomes decomposed, and the oxygen is set free. That is, the oxygen is now in what is called its nascent state, and in that state it has a tendency to unite with whatever organic matter it may chance to come in contact.

In this way the organic matter is burned up, as it were, on the spot, and all odor and septic poison is destroyed by the action of the permanganate of potash. This solution may be used with the utmost freedom about the vessels that are to receive the dejections, and in the water-closets, in all cases where there is any offensive odor.

VENTILATION.

This is another point which should always engage your attention, for the same person, when sick, demands a much larger supply of fresh air than when well. For instance, if a healthy person requires two thousand cubic feet of breathing space, the sick person under the same circumstances should have at least three or four thousand cubic feet. Then, again, the sick man should have the air changed twice as frequently as the man in health.

Ventilation requires the introduction and diffusion of an abundance of pure air at short intervals, and a corresponding removal of the air vitiated by respiration. The movement of air in the sick-room should be imperceptible. At a temperature of 55° to 60°, air moving at the rate of three feet per second, is perceptible. Any more rapid movement than this, gives rise to a draught of air, and will endanger the patient.

It is essential that the air should be thoroughly diffused, and then be removed after being breathed once.

It is claimed by some that the "law of the diffusion of gases" will insure perfect ventilation. But this law acts slowly; whereas the vitiation of the air by respiration goes on rapidly.

Others think that the wind can be made to ventilate thoroughly. The objection to this is that the wind is not constant and incessantly varies in velocity and force.

The most reliable method is that which depends on the variation in the weight of the air by heat.

In every attempt at ventilation we are to first settle the question whether the impure air is to be removed from the apartment at the base or at the ceiling. The latter method is far inferior to the former.

If there is a hot-air register in the floor on one side of the room, and a ceiling ventilator on the opposite side, the hot air will rise immediately to the ceiling, along which it will glide, and escape through the ventilator. Meanwhile, the bulk of the air in the room will hardly have been disturbed at all, and in sleeping rooms, especially, there will be very little diffusion. We are not to lose sight of the fact that carbonic acid gas is much heavier than atmospheric air, and that the bad air will naturally gravitate to the lower part of the room. A heated flue, with an opening at the base, will remove the bad air rapidly and insure the best diffusion. The old-fashioned fireplace answered the same purpose, and is by far the simplest and best method of ventilating any sick-room.

If the chimney has a throat one and one-half feet square, with a good fire, the air will move through the chimney at the rate of four feet per second, and air will be discharged at the rate of six cubic feet per second, which would be at the rate of twenty-one thousand six hundred cubic feet per hour.

Supposing a room of the capacity of two thousand cubic feet, with a fireplace as above, and with three persons in the apartment. The doors and windows all being shut, the air would still become bad through lack of proper diffusion. The whistling of the air about the windows of such a room—fairly shrieking to get in—can always be heard.

If we now open a window farthest away from the fireplace *at the top*, diffusion and ventilation will be good enough.

If the sick-room is ventilated by a fireplace, we should always open a window at the top. If the room, on the contrary, is heated by a register, a window should always be raised at the bottom, since the hot air rises to the top of the room, creates a plenum, and so forces the air out at the bottom. There are three points to be observed in regard to the sick-room. Note, first, whether there is any perceptible odor, on entering the apartment from the open air; if so, ventilation is imperfect.

Make sure, in the second place, that there is a free inlet and outlet for the air.

And, thirdly, place an open-mouthed bottle by the side of the bed at night. In the morning, before there is any opening of doors or windows, or any movements about the room, pour a little clear lime-water into the bottle and shake it. If the air in the bottle is pure, the lime-water will remain clear; but if otherwise, it will become milky in appearance, showing carbonic acid in the air, which has united with the lime, forming a white precipitate of the carbonate of lime.

DIETETICS.

The few remaining minutes of the hour may be devoted, perhaps with profit, to a few important items with reference to the dietetics of the sick-room.

It was a doctrine taught by our grandfathers and fathers, that when a man was sick, he should first be starved, second bled, and next receive ten and ten, which meant ten grains of calomel and ten grains of jalap combined. If these measures did not cure the patient the first day, they were repeated on the second, and so on.

But I do not believe that, simply because a man is sick, or because he has some fever, he should be knocked down with the lancet or some powerful sedative agent. All these agents may be used with discretion in accordance with the principles of the old New England doctor, who achieved a remarkable degree of success in the treatment of typhoid fever. When asked what he attributed his success to, he replied, "When I enter the sick-room, I look my patient over carefully, and if he is cold I warm him; if he is hot, I cool him; and if he is about right, I let him alone; that is, I study to equalize matters as much as possible, and use drugs only when necessary."

A man, simply because he is sick, is not to be starved, nor, on the other hand, can a man who is sick, as a rule, take such articles of food as a well man would be likely to take.

It may be doubtful whether a man, when first taken sick, should take a large quantity of food, but one of the articles which he may have is *Indian gruel*, if not made too strong. If, however, you give permission that the patient may have gruel to take, unless you give special directions as to how it shall be made, you will very commonly find that the nurse has prepared a fair specimen of Indian pudding, and has been administering that for gruel.

In making Indian gruel there should be no more than a dessert or table-spoonful of the meal to a quart of water, and this should be boiled for a long time, keeping the quantity of water good throughout the entire boiling process.

Prepared in this manner, it may be made decidedly salt, and then administered to the patient during the first few days of his sickness. There is one article of diet which all persons may take under all conditions, and that is *milk*.

There are those who say they cannot take milk, that it makes them bilious, etc.; but that is not true. A person who is sick may take milk with the greatest possible advantage, because it contains, in a form easy of assimilation, all the elements essential for maintaining nutrition. It is the natural aliment of the young animal, and certainly answers a good purpose for the old animal, provided it is used properly. New milk, I do not hesitate to say, may be taken, as far as disease is concerned, in any and every condition. Perhaps it will require the addition of lime-water, if marked acidity of the stomach is present; and perhaps a little gentian may be requisite to stimulate the stomach somewhat; and it may be necessary to give it in small quantities and repeat it often; but ice-cold milk can be put into a very irritable stomach, if given in small quantities and at short intervals, with the happiest effects. We have now come to believe, contrary to the teaching of our fathers, that *cold water*, even ice-cold water, is a most beneficial drink, and therefore permit our patients to have it as often as they may wish, provided too much is not taken at any one time.

Now, *tea*, which is a wholesome beverage, and, withal, contributes somewhat to scandal, is very comforting, especially to a sick woman, and may be given without harm, if it is sufficiently diluted with milk. When made very weak—just strong enough to give a flavor—well supplied with milk, and, perhaps, a little sugar, it gives the patient a trifle of nourishment in a very palatable form.

There is another article which has long been known in the sick-room, and that is *beef-tea*. This is not only agreeable to the taste when properly made, but it is one of the very best methods of administering nourishment. There are many who say that there is little or no nourishment in beef-tea, but it does nourish men, otherwise they could not live as long as they do upon it. I admit that bad beef-tea is not very nutritious; and it is perhaps the exception that patients get good beef-tea. It is this fact, perhaps, which, as much as anything, has led to its disuse. If, however, you will make beef tea according to the directions I now give you, it will be found to be a most serviceable article among the dietetics of the sick-room.

Take a pound of the very best beef that can be obtained in the market—the butcher will tell you that any kind of a piece answers to make beef-tea of, but that is not true—cut it into small pieces the size of the end of the thumb, place it in a pint basin, cover *cold* water with, and then place the dish upon the back part of the range or stove, where the water will gradually get warmer and warmer, but will not reach the boiling point. Let it stand and simmer in this manner two hours. Then bring it forward, and boil over a quick fire twenty minutes, and immediately after pour the fluid from the beef, at the same time allowing the little particles which become detached to flow off with it. Now, if there is any fat in the tea, it is well that it should be removed, for the reason that the bile and pancreatic secretion may be unable to emulcify it, and it may do more harm than good. If you wish to be very precise upon this point, the tea can be set aside, and when perfectly cold all the fat can be removed from the surface in a flake; or the fat may be taken up by dropping a piece of flannel upon it as it floats upon the surface of the warm tea.

It is not a good plan to strain the liquor, because this process will remove more or less of the little particles of beef, which are very essential to the value of the tea. It may now be salted, and given hot or cold, as the patient may wish; and it may be given as soon as the pulse indicates any diminution in the force of the heart's action. What becomes of this article of diet when taken into the stomach? The advocates of the worthlessness and non-essential in beef-tea would answer that it makes but little difference. I believe, however, that it is mostly taken up by the gastric veins, and, at all events, that it is exceedingly palatable and nutritious, and does do something more than simply warm the stomach and make the patient happy for a short time.

In case the patient's stomach is very irritable, so that large quantities of any substance cannot be borne, you may resort to *beef-extract* for nourishment.

The proper method of making this article is to take a pound of the best beef, cut it into small pieces, and place it in a good-sized open-mouthed bottle—a pickle-jar is perhaps as convenient as any: Cork the bottle loosely, and then set it into a kettle of water, which is to be kept boiling for two hours. If the bottle is now removed, it will be found that it contains a considerable quantity of fluid, which may be turned off, and the beef subjected to slight pressure to remove still more.

In this fluid we have a concentrated article of nourishment, and it may be given, after it has been seasoned, either pure or diluted, according to the condition of the stomach. Beef-extract is not nearly so palatable an article of food as rich beef-tea, made in the manner described. Ordinarily, however, the tea is badly made, and contains but little beef and considerable water.

Thus, gentlemen, I have considered in this lecture small points which I believe to be of practical importance; and, although they have been referred to in a somewhat discursive manner, I trust they will prove to be of some service to you when you come to engage in actual practice.

The Influence of the Use of Wind Instruments on Chest Affections.—Dr. Burg, a French physician, has published a little book in which he endeavors to controvert, by reference to his own observations and personal experience, the notion commonly entertained that the use of wind instruments is injurious to individuals characterized by pectoral weakness. He remarks, "many philanthropists on seeing our young military musicians wield enormous wind instruments, have sorrowed over the few years the poor fellows have to live. Well, they are mistaken. All the men whose business it is to try the wind instruments made at the various factories before sending them off for sale, are, without exception, free from pulmonary affections. I have known many who on entering on this calling were very delicate, and who, nevertheless, though their duty obliged them to blow for hours together, enjoyed perfect health after a certain time. I am myself an instance of this. My mother died of consumption, eight children of hers fell victims to the same disease, and only three of us survive—and we all three play wind instruments. The day is not far distant, perhaps, when physicians will have recourse to our dreaded art in order to conquer pulmonary diseases.

Original Communications.

A CASE OF GUNSHOT WOUND OF THE BRAIN, THE BALL REMAINING.

By NATHAN MAYER, M.D.,

HARTFORD, N. Y.

On Friday, the 26th of March, early in the afternoon, Mr. M. Ballerstein, a gentleman 54 years of age, and in ordinarily fair health, was shot by accident at his place of business. The mouth of the pistol—a Smith & Wesson revolver—could not have been at a greater distance than five or six feet from his head; the ball was $\frac{22}{100}$ of an inch in calibre. He was struck on the right side of the forehead, at a point $1\frac{1}{3}$ inches from the middle line and $\frac{1}{3}$ inch above the bony margin of the orbit. He fell, and became unconscious almost immediately. The persons causing the accident left in a fright, thus leaving him alone to recover at his leisure. When consciousness returned—after a few minutes it is supposed—he was dumbly impressed with the sense of physical injury, rose, gathered his keys, and left the office, locking the door behind him. At this time he felt something trickling down his face, and now, for the first time, had distinct recollection of the accident. He unlocked the door, went to the mirror and there discovered the wound in his forehead. Still in a confused condition of mind he washed his face and then walked out once more, again locked the door, and proceeded homeward, a distance of nearly a mile. He walked the entire distance, through a populous street, holding a handkerchief to his forehead and feeling much confused. On reaching home he sat down, and said to his daughter: "Help me take off my clothes, and send for the doctor." To his wife he stated that he had "fallen and hurt his forehead."

A half hour later I was with him. He was conscious, rational, and free from pain. There was an appearance of exhaustion on his face, but those around had just administered a tablespoonful of brandy, and very soon he recovered his usual looks. A few drops of blood oozed from the wound, which presented clean edges. With great care and delicacy of touch I introduced a silver probe through the soft parts, and then, with a slightly inward turn, passed it by the ragged edge of the perforated bone into the cavity of the skull. The direction of the probe was mainly from front to back, with a slight turn upward and inward. It was advanced to a depth of $2\frac{1}{4}$ inches, where it met the resistance of an elastic body, giving a little, then bounding back—probably a membrane. Being left thus in the wound, a slight and regular vibration was perceptible. The pulse beat seventy-two, and the only general symptom that could be referred to the injury was a perceptible effort in speaking and some thickness. Sight, hearing, taste, smell, and feeling remained perfect, and no trace of paralysis or convulsion could be noticed. Perfect quiet, occasionally a tablespoonful of milk, hot things to the feet, and a cool, wet cloth to the forehead—these were ordered, stimulants and other food being expressly forbidden.

On the following day Dr. P. W. Ellsworth, a surgeon of large experience and unsurpassed judgment, who in his practice has anticipated many of the methods and instruments which have enriched surgery in the last thirty years, saw the patient with me. He introduced the probe to the same depth, and came to similar conclusions as myself, namely, that the ball had passed into the skull and lodged at some point where it caused little pressure or inconvenience. He advised the continuance of the treatment, and deprecated further interference by operation.

On the fourth day the celebrated Professor Frank Hamilton, of New York, whose teachings have been my surgical guide during the last years of the war, and since, saw the patient in consultation with Dr. Ellsworth and myself. His opinion fortified ours on all points. He looked upon the case as very grave, and anticipated a fatal result. The probe was again introduced, but, at the Professor's judicious request, not beyond the inner plate of the skull.

Until the sixth day there was little change. The pulse remained at seventy-two, the patient claimed to be comfortable, and except some prostration and the slight indistinctness of speech, there were no general signs of injury. The first orders had been strictly adhered to, and *the wound kept open* by a wax bougie, which was introduced to the depth of three-quarters of an inch several times a day.

From the sixth to the ninth day the speech grew more indistinct, and the pulse rose to eighty. On the tenth day he could hardly talk, and would not swallow unless expressly ordered. The wound had been allowed to scab over, and he complained of soreness in its vicinity. Inclined to sleep much during the day, he had a slight convulsion that night, after which the right side of the face seemed drawn up a little. In the morning two more convulsions followed. A bag of ice was put on his head, and the former treatment continued. Next day (the twelfth) he was entirely speechless, signified that he had great pain in the head, and wore an expression of collapse. The scab was taken off the wound, and a teaspoonful of creamy pus spurted forth. Later in the day a string of purulent matter was found in the neighborhood of the wound. This seemed to have the effect of relieving the pressure in the head. On the following day he spoke audibly but very indistinctly, and the pulse, which had been at eighty, came down to sixty. He was perfectly conscious and rational. The wound was kept open, but no more pus came forth; and, the morning after, six leeches were placed upon the forehead and the bites encouraged to bleed for three hours. On the fourteenth day the pulse had once more risen to seventy, and the power and distinctness of speech, as well as the general strength, began to increase. His diet was ordered on a more liberal scale. Three days after, there was a slight relapse, followed by the escape of a small jet of pus, perhaps a quarter of a teaspoonful. But after this he improved rapidly, and soon demanded more solid food, seeming fairly to get well, when suddenly a great faintness overcame him in the afternoon of the twenty-first day. A few teaspoonfuls of whiskey relieved this, and now, with a steady pulse of seventy, he made quick and reliable advances. He spoke clearly, was very cheerful, read the papers, and insisted on giving some directions about his business. The weather was charming, and soon he sat up for several hours a day, and his appetite exceeded his allowance. On the thirtieth day he walked to the door, and it became very difficult henceforth to enforce the quiet and rest which I still conceived necessary. The wound, which on the twenty-fifth day after the injury could not be probed deeper than the bone, was thereafter permitted to heal up. About the 8th or 10th of May he began to take walks of some extent, always accompanied by a friend. On the 20th he walked to his office, distant a mile. Soon after he commenced to use the cars regularly, and, in fact, attended to all his duties, both in his business and the societies of which he is a member. At present he claims to be perfectly well, with this exception: once in a great while a moment's difficulty in recalling some fact, or getting hold of some idea or word, will occur; nor is he quite so strong as before. But a dyspepsia which annoyed him previous to the accident was totally dissipated by the regimen enjoined.

HARTFORD, *June* 2, 1875.

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A CASE OF NON-SPECIFIC RUPIA PROMINENS.

BY FREDERICK WILLIAM GODON, A.B., M.D.

DAN. GREEN, a telegraph operator, æt. 23, applied to me for treatment on June 7, 1875, for a growth on the penis. On examination the growth was found to be a crust or scab of conical shape situated on the left side of the external surface of the prepuce. The crust was arranged in rings of a dark blue color, shading off lighter in the interspaces, where they are thinner. A thick, hard, dark bluish cap formed an apex. The base secreted a mass of yellow pus, which was confined by a thin film which supported it. At right angles to the base ran darkish streaks on the film through which pus oozed. The base was surrounded by a pinkish and inflamed margin, about a quarter of an inch or less in width, but which did not implicate the healthy skin. Vertically the crust measured three-fifths of an inch, the circumference one inch and nine-tenths. The patient stated that he had not had any sexual intercourse for two months and a half, but confessed to having had gonorrhœa a year ago. He denied ever having had syphilis, and the penis showed no marks or cicatrices, and on a careful examination I could find no evidences of constitutional disease. He told me that six days before he came to me, he noticed a small pimple on his penis, which gradually increased, despite soap and water, and the application of sweet-oil, until it assumed the dimensions already given. The patient was very pale and fair, with a large head and prominent forehead. and evidently scrofulous. He had been a great sufferer with rheumatism from childhood, unmistakable signs of which he bore. He had only been out of the hospital one week when he presented himself, where he had been laid up for four weeks with rheumatism, and his story was verified by the resident physician, of whom I made inquiries. I removed the crust with a probe, and found that a large mass of sanious, yellowish-gray pus completely filled it. The ulcerated surface beneath was covered with a thick layer of yellow pus. I ordered the patient to wash it thoroughly with white castile soap and tepid water, and to apply a lotion of carbolic acid. On the following evening the ulcer, although cleaner, still was discharging pus. Pink granulations appeared over its surface; the edges were raised and ragged.

On the 17th of June, ten days after the removal of the crust, the ragged edges had become rounded, slightly raised, and of a healthy pink color. The enclosed space was filled with healthy granulations, the secretion being slight. The healing process followed slowly, but without difficulty, and on July 16th, there only remained a white cicatrix. The skin was entirely free from eruption, and the patient gave no symptoms of constitutional syphilis.

The case is presented not only as peculiar and unique, from the unusual dimensions of the crust, and its solitary character, but is rendered additionally interesting owing to the undecided question among dermatologists as to whether rupia can occur unconnected with syphilis. Hebra denies the existence of the non-syphilitic disease of that name. He classes all others with ecthyma, and bases his diagnosis on a characteristic vesicular ring around the base. Fox and Wilson now hold the disease to be syphilitic, while Shedel and Hillier non-syphilitic; Hillier attributing it to a profound constitutional cachexia, and common in the cachectic condition of the system which follows upon acute specific diseases.

Copeland, in his Medical Dictionary, after defining it, gives scrofula, diet, want, etc., as causing the disease. Had the case been seen in its earliest stages, the diagnosis would have been conclusive. The patient may, it is barely possible, despite his assertions and his illness and confinement, have had connection of an impure character, and so contracted it, although his scrofulous appearance and the history of his late illness seem the most plausible way of accounting for it.

SAN FRANCISCO, 103 MONTGOMERY STREET, *July* 17, 1875.

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A SIMPLE METHOD OF ASPIRATING THE BLADDER.

BY LOUIS A. LA GARDE,

ACTING ASSISTANT SURGEON U. S. A., CANTONMENT, SWEET WATER, TEXAS.

ON the 10th July, 1875, a Mexican teamster, thirty-four years of age, entered the Post Hospital. with retention of urine of thirty-six hours' standing, resulting from organic stricture of the urethra. He was put on opium, and given hip-baths frequently during the first six hours of his admission. Catheterization was attempted, but failed. He refused to submit to external perineal urethrotomy, which was urged as the only means of relief in the absence of any of the modern instruments for the relief of both the stricture and retention. Having no aspirator, and the opium and hip-bath treatment having failed, the case resolved itself into one of rectal or suprapubic puncture of the bladder. A happy idea occurred to me, which I received from my friend, Professor Griffith, of Kansas City, in conversation last winter. I contrived an aspirator by means of a vacuum created in a quart bottle, in which was poured ℥ ss. of chloroform, allowed to evaporate by heat in a water-bath near the boiling point. While the last of the chloroform was evaporating, the bottle was stopped with a tight fitting-cork, through which a canula was tightly adjusted. I attached a piece of India-rubber tubing, twelve inches in length (from a Davidson syringe), to the end of the canula, and fixed a hypodermic needle in the other end of the tube. Having everything ready, I thrust the needle into the bladder, two inches above the pubes, in the linea alba. From the fact that the bottle was still warm, and the remaining chloroform, in a state of vapor, occupied the space in the vacuum, the urine did not flow for perhaps ten minutes; but as soon as the condensation of vapor commenced to take place, the urine was seen to come through the canula, at first drop by drop, and then into an uninterrupted stream. It continued to flow thus until the bottle lacked not more than two cubic inches of being full. The amount of urine removed measured two pints.

The morning following the operation the patient passed urine through the urethra, and later on in the day his condition was so much improved that he considered himself well, and insisted on leaving the Hospital.

I have never noticed an account of aspiration ever having been practised in this simple way, and I am thus prompted in reporting the case. The idea is not mine, as I have said before.

Reports of Hospitals.

ROOSEVELT HOSPITAL.

Reports of Practice and Peculiarities in Treatment.

TEMPERATURE IN ACUTE TUBERCULOSIS.

Dr. Ringer has stated the proposition that "there is probably a daily elevation of temperature in all cases when deposition of tubercle is taking place in any organs."

In the cases whose temperature tables are given below, there were found at post-mortem tubercles in the lungs and other organs, as the liver, omentum, spleen, pia mater, etc.

Case I.

Nov. 4.	Temp.,	102°	morning,	120½°	evening.
“ 5.				102¾°	“

Case II.—Male; æt. 40.

Nov. 20.	Temp.,	101½°	morning,	101¾°	evening.
“ 21.	“	102½°	“	101½°	“
“ 22.	“	103¼°	“	101½°	“
“ 23.	“	102¼°	“	101¼°	“
“ 24.	“	102½°	“	101°	“
“ 25.	“	101¼°	“	102°	“
“ 26.	“	100°	“	101¼°	“
“ 27.	“	102°	“	102⅓°	“
“ 28.	“	103°	“	—	

Case III.—Female; æt. 22.

April 8.	Temp.,	102°	morning,	103½°	evening.
“ 9.	“	103¾°	“	101⅔°	“
“ 10.	“	102°	“	103½°	“
“ 11.	“	101⅓°	“	102½°	“
“ 12.	“	103°	“	102½°	“
“ 13.	“	102½°	“	104°	“
“ 14.	“	102°	“	103½°	“
“ 15.	“	103½°	“	105½°	“

Case IV.—Female; æt. 23.

May 21.	Temp.,	101½°	morning,	102°	evening.
“ 22.	“	99°	“	102°	“
“ 23.	“	98½°	“	102°	“
“ 24.	“	99°	“	102°	“
“ 25.	“	99°	“	101⅔°	“
“ 26.	“	99°	“	102¼°	“
“ 27.	“	101¾°	“	103°	“
“ 28.	“	101½°	“	103°	“
“ 29.	“	102½°	“	102°	“
“ 30.	“	102⅓°	“	103°	“
“ 31.	“	103⅛	“	—	

APHTHÆ OF PHTHISIS.

Aphthæ sometimes becomes an exceedingly troublesome affair, especially in the latter stages of phthisis. The following mixture was recommended, which can be applied with a brush, or the patient can rinse the mouth with it.

One grain of either quinine or morphine (sulphate) to an ounce of water, and to this add one drop of the oil of black pepper.

FOR THE RELIEF OF THE THROAT IN PHTHISIS.

It not infrequently happens that the chief thing of which the patient complains is the throat, and when it is examined evidences of pharyngitis and more or less of follicular inflammation is quite likely to be seen. For the relief of this condition, salt water and oil of black pepper, used in the form of spray, was recommended. The solution of salt should perhaps be no stronger than that made by adding a teaspoonful of common table salt to a pint of water, and oil of pepper added in the proportion of one drop to the ounce.

VOMITING IN PHTHISIS.

The explanation given, when it occurs in the first stage of the disease, was that it is produced by pressure of the enlarged bronchial glands upon the *par vagum.* Dry cups between the scapulæ, it is said, will arrest the vomiting in this stage very quickly. In the advanced stages of the disease the enlargement of the bronchial glands disappears, and the vomiting depends upon another cause. For example, the patient commences to cough in the morning to remove collections of mucus and pus which have accumulated during the night, and as the muco-purulent or purulent material comes into the mouth, its taste and offensive odor produce nausea and vomiting. Absorption of septic material also enters as a factor when cavities are present. To relieve the symptom under these circumstances carbolic acid was recommended. These theories must be taken for only what they are worth. The therapeutics have some value.

DIARRHŒA OF PHTHISIS.

An excellent article of diet when this symptom is present is milk boiled with mutton suet until it is thick as cream. The method of preparing it is to put a piece of suet into a bag and boil it in the milk until the requisite consistency is obtained. To this may be added such remedies as the physician may wish to administer, as persulphate of iron, opium, belladonna, etc. Belladonna is said to be very serviceable, for the reason that it possesses the power of producing contractions in the unstriped muscular fibre of the intestines. The following pill was also recommended:

℞	Resin of turpentine.........	gr. iij.
	Nitrate of silver............	gr. ¼.
	Opium....	gr. ¼.
	M.	

S. One p. r. n.

Any of the oleo resins, perhaps, may be used.

RHEUMATISM.

It has been said that rheumatism is quite apt to follow in the wake of some chest trouble, such as asthma, phthisis, etc., and there were several cases in the wards which seemed to illustrate this idea. They were, for the most part, cases of phthisis, and the prescription in use was denominated that for "rheumatism of phthisis." One or two or more joints became more or less swollen, stiff, and inflamed, and the patients were placed upon

℞	Potass. iodid..........	ʒ i.
	Fld. ext. conium.......	ʒ iij.
	Tr. opii. camph	℥ ii.
	Aq. aurant. flor........	ʒ iv.
	Aquæ....	℥ iv.
	M.	

S. Teaspoonful t. i. d.

ACUTE PLEURISY—ACUTE PERICARDITIS.

The pleurisy in this case was apparently idiopathic. If there was anything which predisposed the patient to the attack, it was the influence of alcohol. The pericarditis followed the pleurisy and was of moderate severity.

ACUTE PNEUMONIA.

By this term is meant the ordinary croupous pneumonia of adults. Of this we saw several cases: some were convalescent; some were in the resolving stage; and some were in the stage of complete hepatization. One man who came into the hospital with delirium tremens was suffering from double pneumonia, which had been preceded by pleurisy upon the right side, and at this visit a marked pleuritic friction sound was heard for the first time upon the left side. There was marked bronchial breathing over the right lung posteriorly. This man had had a few leeches applied to his chest, and was being dry-cupped daily.

The saying that large doses of quinine will reduce the temperature for any considerable length of time, had not been confirmed by the experience of the hospital. There is another item with regard to the treatment of these cases of pneumonia which in these days should be noted, and that is, cold applications to the chest had *not* been used. Oil silk is usually applied. The treatment in the main has been expectant, and the rate of mortality has been very low.

ACUTE RHEUMATISM—PERICARDITIS.

The chief point of interest was the occurrence of pericardial inflammation in the course of acute inflammatory rheumatism after the urine had been made alkaline. It has been claimed that this does not occur.

HÆMOPTYSIS.

This patient expectorated blood quite freely while we were standing by her bedside. One lung was in the second and the other in the third stage of phthisis. She was at once ordered to take fl. ext. ergot, gtt. xl., every four hours. She had had an attack a short time before, which was apparently arrested by this remedy. At least the hemorrhage ceased while she was taking the medicine.

EMBOLISM OF THE MIDDLE CEREBRAL.

There were some interesting points in the history of this case. There were present a mitral systolic murmur and a moderate amount of hypertrophy of the left ventricle. He was suddenly attacked with right hemiplegia *without* loss of consciousness. Diagnosis of embolism of the middle cerebral artery was based upon the above data. It has been said that these cases always prove fatal, and prognosis was made in this case accordingly.

Power returned in the arm first and in leg afterward, and the patient was nearly well.

SURGICAL DIVISION.

DR. WENDOVER, HOUSE-SURGEON.

EMPYEMA.

The special interest in this case consisted in the method of treatment, which was free incision through the chest wall, and washing out the pleural cavity with a solution of salicylic acid of the strength of one part to five hundred of water. The man was doing very well indeed, and the cavity had diminished in size to such an extent that it now held only four or five ounces. The opening showed considerable tendency to close, and for a time it was dilated with sponge-tents, but these gave the patient so much pain that he preferred to have it forcibly dilated with the finger when the cavity was emptied and washed out. His general appearance was good.

SYNOVITIS OF KNEE-JOINT.

The feature of special interest in this case was the appearance of a swelling on the second day of the effusion, about four inches above the joint on the inner and under surface of the thigh, which went on to suppuration.

How could this abscess be accounted for? Was there any relation between it and the synovitis? There was no history of injury of any kind.

ELASTIC LIGATURE.

Several cases of fistula in ano have been treated here of late, by means of the elastic ligature, and the patients have suffered but little inconvenience while the ligature was cutting through. They were up and about most of the time, and suffered but little pain. In one case the ligature cut its way through in five days; in two other cases in seven days, and in every case a fine granulating surface was left behind, which healed much more readily and satisfactorily than the wound made by the knife.

RIGHT HEMIPLEGIA—APHASIA.

The following case illustrates the difficulty at times in making a diagnosis: A female patient, æt. 34, was admitted to the hospital on the 28th inst., with complete hemiplegia upon the right side, attended with aphasia. The pupil upon the affected side was slightly dilated, and did not respond to light. For more than a year she had complained of attacks of numbness of the right arm, lasting for a day or so, and then passing away. On the evening of the 27th she went to bed, feeling usually well, except slight numbness of the right arm. The following morning, while rising, she fell upon the floor, and was found paralyzed upon the right side. There was no loss of consciousness. There was no cardiac disease; no history of rheumatism. There was no evidence of febrile movement, as might be expected where a clot has been formed. Cerebral hemorrhage does not commonly occur until after forty years of age. Embolism is more likely to occur in younger subjects. What was the lesion in this case? Four days after admission changes in temperature were noted as follows:

	Paralyzed side.	M 100½° F.	Sound side.	M. 99¼° F.
	"	E. 100⅕°	"	E. 99⅖°
Fifth day,	"	M. 100⅕°	"	M. 98½°
	"	E. 100½°	"	E. 98½°

Latterly, the temperature was higher upon the unaffected side, but this was accounted for by the bedsore which the patient had upon that side. The temperature, as a whole, was regarded as favoring the supposition that the paralysis was due to cerebral hemorrhage.

CHRONIC SYNOVITIS.

The point of special interest in this case relates to the treatment. The woman was admitted to the hospital with acute articular rheumatism, which finally resolved itself into a synovitis affecting the right knee-joint. The joint became enormously swollen and tender, and the general condition of the patient bad. General remedies and local remedies had been employed without avail, and it was suggested that leeches should be applied. The patient was anæmic, debilitated, and certainly this treatment did not have the appearance of being very judicious. A few leeches, however, were applied, and they apparently rendered very great service. The patient expressed herself as feeling relieved at once, and the appearance of the joint denoted improvement. The swelling diminished perceptibly immediately after their application. Confining our attention to this case, the conclusion was unavoidable that there was distinct improvement after leeching the joint. After an interval of ten days a second application was made. This was followed with treatment by means of compressed sponges, and the patient can now, at the expiration of four months, walk with only a slight limp.

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THE CONGRESS OF GERMAN NATURALISTS AND PHYSICIANS is to be held in Gratz, from the 18th to the 24th of September.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor

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THE INTERNATIONAL MEDICAL CONGRESS OF 1876.

Everything in Philadelphia at the present time bears the impress of the coming Centennial. Articles of manufacture, of utility, and of luxury seem to have been rebaptized with the one magic word, which, in these times of feeble reaction, gives them vitality, and it is presumable renders them more infallibly saleable. The medical profession has not escaped the epidemic, and is even now preparing the intellectual feast to which all the world "and the rest of mankind" are to be invited during a portion of an autumnal month of 1876. We hope the dishes to be spread before the guests—especially those from abroad—will be such only as are likely to be palatable, and that the caterers will not err in providing embarrassing quantity in lieu of more digestible quality. There is frequently at public banquets—and those of a purely intellectual character are also amenable to the criticism—a failure in kind rather than in degree; a tendency, in other words, to overtax the organs of assimilation with a chaotic variety of dishes, some of which are pretty and attractive to the eye, but essentially frothy and indigestible. Unless the hosts produce a *carte* of wholly nutritious viands, we fear the guests may carry away with them only the recollection of the thin and insipid rather than that of the solid and substantial. We learn that the arrangement of the preliminaries for the meeting of the Congress has now passed from the single hands of the Philadelphia County Medical Society—which, however, deserves the credit of inaugurating the movement—and that all the medical societies of that city are harmoniously co-operating to accomplish a result as grand in its perfection as in its design. The whole profession is therefore astir, without the probability of cliquism or feud, and much greater success is possible than if a mere fragment had overtaxed its energies and perhaps only feebly developed a gigantic enterprise. Time alone will determine whether even the whole local profession, as represented in committees organized for that purpose, will be able to give to the Congress so ennobled a position among the International Congresses of the world, that it may be ever memorable for the amount of zealous, earnest work accomplished. and for the immediate and remote effects for good that may follow in its train. We urge upon all those interested in its success, that it shall not, in a single particular, pale its uneffectual fires before the radiance of any of its elder Congressional sisters. We noticed recently in our columns the fact that a portion of the programme included the delivery of addresses by distinguished authorities on a number of general branches, the speakers to be Americans only. We understand that a slight change in this plan of the entertainment will probably be effected to render it less exclusive in its nature. We trust that our Philadelphia friends will bear steadily in mind the international feature of this literary festival, and that prudence and foresight will be exercised to prevent it from degenerating into one of a purely national character. We suppose the Sections—if such there be—will afford a field for discussion on matters of vital moment that are intertwined with the health and happiness of every nation that may be represented in this Congress; but the general body of the Convention, before it is cut up into sectional partitions, will doubtless solicit opportunities of listening to those who come from over the seas not as auditors merely, but to lend the voice of their experience to the deliberations. A Centennial is seldom vouchsafed to us, and it is therefore natural that we should seize the opportunity to tell the world of our wonderful progress since the days of 1776, but this must not be done offensively or boastingly. We must not flaunt in the faces of our foreign guests the vanity, real or reputed, with which we are already accredited by the world at large. We must not claim for ourselves originality for operative procedures, therapeutic ministrations or histological researches, which may have been imported from abroad, and so familiarized among us that we may have forgotten their foreign authorship. We must not invite our professional friends to stand amazed at the greatness of the American eagle, and to wonder at the loudness of his screech; we must rather give them a few of his choicest feathers, to preserve as mementos of their visit. And while we naturally imbue the Congress to a limited degree with the spirit of self-glorification, which seems absolutely inseparable from it, let us hope also that we may become more earnest and profound thinkers and wiser practitioners, from the infusion into the mass of the leaven which will enter it from agreeable professional and social partnership with the representatives of culture and science from abroad. As the plans of the Congress become more fully developed, we may possibly again offer such unsolicited advice as we think may tend to increase the efficiency and completeness of the undertaking, for the time will soon come when it must of necessity assume vast proportions and cease to be an enterprise in private hands, as we might style those of the profession of any one city.

THE SURGERY OF THE SIAMESE TWINS.

A very recent addition to Chang and Eng medical literature is a paper read May 5, 1875, before the College of Physicians of Philadelphia, by Prof. William H. Pancoast, and published within a few days in its volume of Transactions. The surgical considerations in regard to the propriety of an operation for the separation of the twins, deduced from the autopsy made last year, form the subject-matter of the paper. The conclusions arrived at are, I. That as a necessary deduction from the anatomical demonstration of its constituent parts, no operation of section of the band, for the purpose of separating the twins in adult life, could have been performed and their lives preserved. II. That it would have been judicious surgery, upon the death of Chang, to have at once applied a strong ligature around the band, as far as possible from the body of Eng, and then to have cut through the band, between the ligature and the body of Chang. III. That whether or not the operation would have been successful in the childhood of the twins is problematical, but that it would have been the part of wisdom and humanity to have made the effort.

The volume contains also Dr. Harrison Allen's very interesting report, in full, of the autopsy of the same teratological curiosities, technically classed under the variety of abnormal conformation known as the omphalopagus xiphodidymus. From the fact of a certain amount of continuity existing between the portal systems and that in the fœtal and early period of extra-uterine life, the vessels must have been more capacious, and associated with a large tract of liver tissue, he concludes that, all things being equal, an attempt at division of the band in early life would have been accompanied with more serious hemorrhage than at any subsequent period.

UNSUCCESSFUL PRACTITIONERS.

Our correspondent Diploma writes a very interesting, instructive, and suggestive letter, detailing the experiences of an unsuccessful practitioner. Although we are not prepared to endorse everything he says, we believe, from what we know of the writer, that the facts which he presents are not to be questioned. A great many of our readers will think with us that the time has come for looking the matter of overcrowding of the profession fairly in the face, and hold the medical colleges of the country to an accountability. It may be conceded that there is always room in the front ranks of our calling, but in the confusion of struggling multitudes is there an even chance that the truly meritorious one will always succeed?

Progress of Medical Science.

Statistical Review of Operations for Tumors of the Superior Maxilla.—Dr. Ohlemann, of Bremen, has furnished in tabular form the statistics of thirty-two cases of tumors of the upper jaw, where complete or partial resection was done. It appears that the entire jaw was removed fifteen times, and part of it twice, for carcinoma. Five sarcomatous tumors classed as giant-celled, three as spindle-celled, one as round-celled, and one as medullary, were operated on. Cylindromata twice required partial resection; epitheliomata twice an almost complete resection; an enchondroma once a total resection. Out of twenty total resections there were three deaths and seventeen recoveries, while of twelve partial resections there was no death. Fifteen per cent. therefore represents the total mortality. Dr. O. calls attention to the much larger proportion of carcinoma than of medullary sarcoma among these cases than in those of O. Weber. He finds that carcinoma is much more frequent in middle and advanced life, and is twice as frequent among men as women. He thinks that in some cases the tendency to the disease is undoubtedly hereditary. After the sixth month, the pain, inconvenience, and disfigurement make the patient generally quite ready to submit to an operation.

The ultimate result of the cases of carcinoma was fatal after an interval of from one to three years, the disease recurring in the cicatrix. Still he considers that the operation should be undertaken in these cases, provided the disease be not so far advanced as to make it impossible to separate the diseased from healthy tissues, because it prolongs life and alleviates suffering. In cases of epulis, the operation, with the aid of Liston's forceps, has in all cases resulted in cure. The operation itself was generally performed with the patient sitting up, the head supported on the breast of an assistant, and it was the subject of remark how well so severe an operation was borne. The incisions in the skin had to be variously modified in view of the size and situation of the tumor; but it was found that some disfigurement from sinking in of the cheek, and distortion of the mouth by contraction of the cicatrix, were unavoidable. The only exceptions to this were in two cases where the tumor grew in the direction of the nasal cavity, when Dieffenbach's incision was made use of with the best results, and in some cases where the growth sprang from the alveolar process, and no wound of the skin was required in its removal. Liston's bone forceps were used for detaching the upper jaw from its bony connections, and Langenbeck's forceps for removing the loosened portions. After thorough removal of all diseased tissue, the wound was filled with carbolized lint, and the edges united with sutures. In the after-treatment it was thought very important to prevent the flow of secretions from the wound into the mouth, through the opening left in the palate. Antiseptic solutions were therefore assiduously used so that pulmonary complications should not be set up. Secondary hemorrhage led to a fatal result in two cases, and erysipelas also occurred, mainly owing probably to the bad sanitary surroundings in the hospital. Patients usually were able to leave the hospital, cured, after from two to four weeks. Dr. Ohlemann furnishes the details of seven cases, to illustrate various points on the subject.—*Archiv für Klin. Chirurg.*, xviii., 2, 1875.

An Antiphilogistic Method of Dressing Operation Wounds.—Mr. Jonathan Hutchinson says that for some time past he has been employing a plan of dressing operation wounds which has afforded excellent results in the way of primary union, though he does not claim anything new for it. The essential feature of the plan is to keep the parts cool, by the systematic application of a lead-and-spirit lotion. The lotion consists of half an ounce of liquor plumbi, and an ounce and a half of spirit to the pint. An ample fold of lint, wet in this, is applied to the skin over and around the wound, and emphatic directions are given to the nurse to moisten it every quarter of an hour or every half hour, according to the rate at which it dries. The skin ought to become whitened by deposit of lead. The application is to be commenced from six to twelve hours after the operation, and from that date all bandages are to be set aside, and the lint kept simply laid on the part. It is to be continued without intermission until the wound is perfectly sound, a week or two weeks, as the case may be. During the night every suitable opportunity should be used for rewetting the lint. If the plan fail, it will in all probability be, he says, from negligence in this matter. The theory of the plan is, that by keeping the parts quite cool, and saturating the tissues with lead, inflammation is prevented. It appears to have no risks, except that if very thin skin flaps have been left, it may be possible to over-cool them and cause gangrene. Mr. Hutchinson says that he has been in the habit of speaking of this plan of treatment as antiphlogistic, but it may be antiseptic as well.—*The Lancet*, June 26, 1875.

A Fourth Series of Fifty Cases of Ovariotomy.—Mr. T. Keith, Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh, has just published his fourth series of fifty cases of ovariotomy. The previous ones were reported in *The Lancet*, September 7, 1867, August 29, 1870, and November 16, 1872. Since the last date he has been able to diagnose and cure by a single tapping four cases of serous cyst of the broad ligament, which tumors some time ago would probably have been removed by operation. In the first series of fifty cases there were eleven deaths; in the second series, eight deaths; in the third, eight deaths; and in this last, six deaths.

In these last six fatal cases the cause was septicæmia. He says that the first was a case of acute suppurating cyst with pyæmic fever. It seemed a hopeless undertaking, but equally hopeless-like cases of suppurating cysts had recovered. In two the tumors were malignant, and in both there was red serum in the abdomen, and pleuritic effusion at the time of operation. In two the operation was very prolonged—three hours in one, nearly two in the other. The latter was a badly constitutioned woman, and had suffered from acute kidney affection, with convulsions. In one case drainage was used. Earlier operation, he thinks, might have saved both. In the last fatal case the patient was perfectly well until the sixth day, and recovery seemed sure. In a few hours the temperature rose to 106°, the pulse to 170°, and she died four days after. He concludes as follows: "Further experience has satisfied me of the value of the actual cautery in the treatment of the pedicle, and I am coming to the conclusion that it is the best of all the intraperitoneal methods for securing the pedicle. At first I was prejudiced against this method, and only used it in the worst cases, where the clamp could not be employed. It has had from me a very severe trial, and when the numbers are larger, I shall publish the whole of the cases in detail. This method, as is well known, was introduced by the late Mr. Baker Brown, and after having all sorts of improved clamps, I have gone back to the simple rough method so successfully used by him."

Sulphuric ether was used in all the cases.—*The British Medical Journal*, June 26, 1875.

Resection of the Upper Jaw performed with the Head hanging back (Rose's Method); Acute Anæmia; relief by Arterial Transfusion.—Dr. Max Müller, of Cologne, furnishes a history of a case where he practised resection of the upper jaw for an epithelial cancroid, and adopted the hanging position of the head recommended by E. Rose. It was followed by a most alarming hemorrhage, which nothing in the circumstances of the case had led him to anticipate, and which far exceeded the loss of blood in any other one of the twelve cases in which he has performed this operation. The patient, an officer in the army, thirty-eight years of age, began to suffer from the growth, in the spring of 1874, and by November of that year it had increased so as to involve the whole of the hard palate on the right side, and the alveolar process of that side in a cauliflower growth, into which a needle would easily penetrate for an inch without encountering bone. The operation was done on November 14th, the position being that referred to, and the patient being thoroughly anæsthetized with chloroform, which was well borne. The object aimed at, of preventing the entrance of blood into the trachea, was completely attained. The operation was the ordinary one. The hemorrhage, however, was unusually abundant, although all bleeding vessels were promptly secured. The anæsthesia passing off, the patient fainted the moment he was placed in the sitting posture on the table for the adjustment of the sutures. The head was replaced in the low position, and various measures resorted to, but no pulse could be felt at the wrist until the legs were enveloped from below up with elastic bandages. Nor was it possible to remove these, in spite of the pain they caused, after his return to consciousness, without the immediate failure of the pulse. Accordingly, after some hours' trial of other measures, the left radial artery was exposed, and nearly eight ounces of defibrinated human blood injected. The transfusion was well borne, though followed by a chill and sweat, and the next morning the patient was out of danger. He made a good recovery.—*Achiv für Klin. Chirurg.*, xviii. 2, 1875.

A Peculiar Form of Skin Disease.—Dr. H. S. Purdon, of Belfast, furnishes a description of an affection of the skin which he has often observed during the last nine years among the "doffers," so called, in the "spinning-rooms" of the flax-spinning mills. The "doffers" are mostly young girls, whose duty it is to take the bobbins from the machines and clean and oil them. The temperature of these rooms is always high, so that the girls are constantly in a profuse perspiration. The orifices of the sebaceous and sudoriferous glands being thus constantly dilated, become clogged, as Dr. P. thinks, with the train-oil used upon the machinery. The secretion thus retained acts as an irritant, causing an inflammation, accompanied at first by a papule, which soon becomes a pustule with a black spot in the centre. They rarely, however, burst or form a scab. He describes it as a combination of acne and lichen. It occurs chiefly on the forearms and arms, or those parts most exposed to the action of the oil, and when seen upon the face is probably due to wiping it with the oily hands. The skins of these girls soon acquire a dry yellowish quality, and the papules, from their "shotty" hardness, and the pustulation which follows, have, when accompanied with febrile movement, given rise to the suspicion of small-pox. Dr. P. does not give the results of treatment, but none seems likely to be very effectual so long as the patients continue their occupation.—*Lancet*, Nov. 21, 1874.

A New Kind of Poisonous Dress Goods.—According to a report by Prof. Gintl, in the *Lotos*, it appears that the public is exposed to a new source of poisoning from the use of arsenical glycerine and the arseniate of alumina as mordants. He states that these substances are now coming largely into use, especially among the English and Alsatian manufacturers of cotton printed goods, as substitutes for albumen which is much more expensive, some substance being required to fix especially the aniline colors, which are now so much in demand. Such goods have recently been sold in Austria and especially in Prague, containing, according to Prof. G., as much as 15 to 25 grains of arsenious acid, in the form of arseniate of alumina, to the yard; and this is by no means an insoluble salt, but one more poisonous than the much abused green arsenic colors. The more suspicious fabrics are stated to be those of a violet ground with white figures, and those printed in brownish yellow or reddish brown designs, and which are sold at low prices.—*Rundschau*, Feb. 28, 1875.

On the Passage of White Blood-Corpuscles through the Walls of the Blood-vessels.—In noticing a recent article by Prof. A. Arnold, on the migration of the "Colorless Blood-Corpuscles," Dr. Dollinger refers to A.'s former article in *Virchow's Archiv* on the "Diapedesis," or passage through the walls of the blood-vessels of the red globules. With regard to the latter, the statement is that the red corpuscles make their way into the surrounding parenchyma through stigmata which are enlarged into stomata, and that these are found not merely at the points of contact of the angles of the endothelial cells, but also in the other markings of their surfaces, and that an outflow of serum takes place through these stomata until they are plugged by the corpuscles in their passage. The process is said to be perfectly analogous in the case of the colorless corpuscles, nor can they be seen to make their way through any other openings. It is found, however, that in case of stasis the stigmata are much more enlarged than in inflammatory hyperæmia, and at the same time the accompanying outflow of serum is much greater in the former than the latter. Thus in the former case the current of serum is strong enough to divert from their course and draw towards and into the openings those red corpuscles which are passing along in the middle of the vessel, while the weaker current of serum in inflammatory hyperæmia is only sufficient to draw into the orifices the white corpuscles which move along near the walls of the vessel, leaving the red ones in mid-stream unaffected. The actual passage of the white corpuscles through the walls of the vessel is effected by their own amœboid motion.—*Rundschau*, May 25, 1875.

Embolic Aneurisms and their Analogy to acute Cardiac Aneurism.—In several cases of endocarditis affecting especially the aortic valves, Ponfick has found multiple aneurismal enlargements of the vessels, notably those of soft tissues, such as the brain and mesentery. In their interior was found an embolus consisting of a rough calcareous mass, resembling the excrescences on the valves of the heart, and the plugs which occur without aneurism in other arteries. He attributes the formation of the aneurisms to these emboli becoming more and more firmly wedged into the vessel, and penetrating its walls either by necrosis from pressure, or by their pointed extremities, whence follow hemorrhage, and the formation of a sac. He states that they are most commonly found just behind the point where a vessel subdivides, the action of the stream of blood in this situation having a tendency to force them against the wall of the vessel, and so favor the formation of the aneurism. In calling attention to this matter, Bettelheim cites Rokitansky's analogous explanation of the formation of acute cardiac aneurism, viz., by necrosis of the heart wall, caused by the constant pressure of vegetations springing from the aortic valves. Ponfick believes that a large proportion of the blood-sacs occurring on small arteries can be traced to such an origin.—*Virchow's Archiv*, 58, 1875.

Correspondence.

THE EXPERIENCES OF AN UNSUCCESSFUL PRACTITIONER.

To the Editor of The Medical Record.

Dear Sir:—Davids are always singing the attractions of the medical profession, and never lack an audience; Jeremiahs utter their lamentations in vain, and are of no account.

Nevertheless, I have reason to think that Jeremiahs are by far the more numerous, and have a good deal on their side. As one of the Jeremiahs, therefore, I trust I may be allowed my growl, if only for fair play. If what I write savors of egotism, I here once for all make an humble apology; but egotistical or not, my only wish is to set down the facts of my case, now that I take my leave of medicine, for others' benefit.

About eleven years ago I commenced the study of medicine, immediately on graduating from one of the best literary colleges in the country.

After three years spent in hard study and faithful attendance on lectures, I took my degree at Bellevue Hospital Medical College; then I passed the examination, and commenced my term of service in the Hospital (Bellevue). On the expiration of my eighteen months I went abroad, and spent a year of hard work in Germany.

On my return I received the appointment to the surgical class of a large dispensary, and also opened an office in a thickly settled district near Washington Parade Ground.

I wrote several articles for the medical journals—indeed you published some of them—on which I was complimented by many of the older members of the profession. Then I joined different societies, and employed my ample leisure in working at chemistry, and with the microscope, and in reading the journals. So you see, my education was much more extensive than that usually enjoyed by students.

I trust these details will be pardoned. I wish to show that the oft-repeated story of non-success from coquetting with your business, and allowing other concerns to take your time was not the case in this instance.

This was all very well, and gave me great pleasure in the doing, for I was an enthusiast about medicine, and would have liked nothing better than to have pursued it for its own sake; but, unfortunately, the profession had been adopted by me as an ultimate dependence for necessary bread and butter. Now, my neat and elegant account-books showed, at the end of the second year in city practice, just two entries, relating to two patients, from neither of whom had anything been collected.

I saw my capital dwindling, and resolved to make a move at once, as I could not afford to remain longer where I was.

My location was changed to a town beyond the immediate influences of the metropolis, nearly one hundred miles away from the city. It was a place of some four thousand inhabitants, many of whom were very well off, and as there were but three physicians there, I thought a fourth might find something to do.

Well, the first year I made $500, barely enough to cover expenses for living, a horse and wagon being indispensable in a place where often I had to ride many miles. The work was hard; that I had bargained for, but the bane of the place was its "beat" element. Had half of those who consulted me paid, and most of them were fully able to do so, I would have done a stunning business; as it was, my $400 just represented the payments of one-fifth of my patients, the remaining four-fifths being still my debtors.

The second year saw the $400 of the first sink to $100. The cause of this phenomenon is easily explained. One of the original, old-established doctors died, and as soon as the fact became known, a certain shrewd individual from New York made up his mind that he could not do a better thing than to come here and give himself out as the successor to the deceased doctor. Unfortunately for his calculations the same intention animated the minds of no less a number than five equally shrewd individuals, and Beeler's Quarters was plethoric with doctors. These new comers at first set about to vindicate, each for himself, the title of being the only original Jacobs. But competition did not enliven trade, and at last things got so bad that each man of the six set up a private dispensary of his own, and quarrelled with his neighbor over the few charity patients who ventured on availing themselves of the abundant provisions for medical relief. Finally, poor people were induced to submit their ailments to one of the dispensary proprietors, who had the reputation of always prescribing tinctures, and as the opposition made use of fluid extracts, the practice of the alcohol man grew apace. But the six soon tired of this business of competition and free dispensaries, medicine included, and then they banded themselves together into a mutual benefit and admiration society against an innocent though unappreciative community.

Since the spring floods from the medical colleges, four newly made graduates have added themselves to our number, they likewise having heard that there was a dead man's place to be filled, and supposing, in their ignorance, that they had found "an opening." I need not dilate on the effects of all this on my business. When I tell you that since the first of February, 1874, up to the present time, I have pocketed the magnificent sum of $50 from my practice, I have reason to believe that I am ahead of some of my fellow unfortunates. This is not all. There have lately come here a rubbing doctor and his wife, who at once set every sick and imaginary sick person mad on the subject of their peculiar practice. Not only we, late comers, but the old and well-established physicians of the place have been made to suffer by the seductive pamphlet's influence. It is not only the ignorant that patronize these people, who are a pair of as pestilent, vulgar, and ill-educated quacks as it has ever been my ill-fortune to meet, but the most prominent and intelligent minister of the place has sent his wife to be rubbed, and the valetudinarians of all the churches followed the lead.

When the man of greatest importance in the town is gained over by a discourse on the certain efficacy of expelling disease—as an entity—by rubbing and stimulating "the pores," what chance can a modest professional sign have as attraction, when placed in competition with a lively colored representation of a joyful ex-cripple throwing away his crutches at the touch of a long-haired individual near by.

To-day I say good-by to the profession. It is greatly to my regret to be obliged to do it. Willingly would I wait the ten years which the gentlemen under whom I served at the hospital tell me will bring success, for my desire is, above all things, to remain in the ranks. But stern necessity knows no law of choice.

Nearly eleven years ago I commenced with a capital of eight thousand dollars, which I expected would pay for education and give me something to live on till my practice should be sufficient to bring me a living. The facts show that I have nearly consumed my capital, and am farther than ever from the chance of making a living by medicine. I shall take the thousand or so I have left and try to get in some mercantile business, which, no matter what it may be, can hardly promise worse than the certain starvation if Medicine be longer relied on. Fortunately I have only myself to consider; if I fail in a new undertaking no one will be dragged down with me. What is the secret of my non-success? It is not repulsiveness of person; it is not lack of decent manners; it is not extreme youth; it is not excessive age; it is not inattention or want of earnestness in such business as I have had; it is not the commission of some unfortunate mistake which has shaken people's confidence; it is not lack of proper technical education, yet even the hod-carrier makes more money than I, and I pay the girl in my kitchen a stipend far beyond the amount of my own receipts.

I recollect hearing a genial and popular professor once, giving his closing lecture to his class, say: "Gentlemen, a great many of you, over a hundred and a score, will be sent out from this school this year—many more from all the schools over the land—and besides, there is an absolute increase in the number of physicians here; but we want all of you; this great and growing country cannot have too many."

Then came something about "our glorious, our noble profession," which was applauded to the echo.

Now, I respectfully submit this is all wrong. Platitudes are very well, but when young men—farmers' sons and mechanics—stimulated by such misplaced eloquence, hold their familiar tools in contempt and make up their mind to become doctors, I emphatically declare that the man who urged them on has done a great wrong to the young men mentioned, to the community, and to the profession. If there is one thing more certain than another it is that this "great and growing country" does *not* want more doctors. I am no hand at statistics, but in Great Britain and Ireland I believe there is a population about as large as ours. There there are some twenty thousand doctors, yet from nowhere else is more complaint made of the overcrowded state of the profession. In our country, the last census, if I recollect rightly, made the number of medical men, of all schools, seventy-four thousand—one to every five hundred and forty persons. Considering the gigantic abuses to which medical charities in large cities are subject, and the many paying patients who select long-established physicians, of great reputation as their advisers, how miserably minute a fraction of that five hundred and forty comes to each of the juniors.

It cannot be otherwise.

Now I should be the last man in the world to prevent any one, who really has a decided inclination and aptitude for medicine, from qualifying himself to practise it; but that inclination ought to be founded on a better basis than the fancy pictures drawn by our professors. They are gentlemen usually—in the cities—in large and remunerative practice, and they must remember that everybody cannot be as they by any amount of work. When every place is full, how are new-comers be accommodated?

But even if a man know without doubt that medicine is his proper vocation, I warn him, by my example, not to try it if he looks to get his support therefrom. It is true that many a young man has the way made plain for his feet by doting relations and friends, who nurse the second Mott through adversities which would have swamped him unaided. Again, there are instances of blind luck, in which certain favored individuals stumble right into a certain success; but wo be to him who promises himself a certain leap at success on no other ground than that others have accomplished it before him. He will find the way blocked by scores of eager contestants, each bent on the one object, and which necessarily but one can obtain.

Another strange feature about the profession—a feature which distinguishes it from other learned callings and from trade—is, that money and brains, and time spent in perfecting one's self in medicine, give the man who has thus qualified himself no advantage in competition when seeking the patronage of a community. I was told by physicians of great reputation and first-class metropolitan practice, that by going through Bellevue, and studying awhile abroad, I would put, in a few years, thirty thousand dollars in my pocket. Perhaps that "few years" is not up yet; but certainly in five years the first thousand has not yet come to me. I wish to be distinctly understood as putting the incalculable and no-where-else-to-be-found advantages of hospital interne service on a higher level than that of a mere monetary investment, nor did I ever suppose that study at home or abroad would ever enable me to secure anything like the returns which flow into the coffers of a certain carpenter, turned quack, of whom I have knowledge. Nevertheless, there is certainly some excuse for the dissatisfaction of a man who, on the earnest recommendation of several eminent veteran Æsculapians, reduced still farther his slender remaining means, that he might secure a thorough training for his work, and in five years after finds that the army of medical college graduates, whose whole education comprises the two courses of lectures, and reading with a preceptor (?), will seldom be behind, and in many instances is ahead of him. A well-meaning gentleman, who, until three years ago, handled the plough with adept hand, and, as he himself informed me, with great seeming satisfaction, "cudn't neither read ner write at thet time," has just put up his name, with the cabalistic M.D. after it, on the house next to mine. He showed me a diploma, certifying that J. M. had been granted the degree of doctor in medicine for numerous sufficient reasons, by the Faculty of the Medical Department of the University of Round-Holed Corners. The diploma was in Latin, such as Terence, or any *late* Latin author would have rejoiced to produce. J. M. confessed to me, under his breath, that his early education having been neglected—rather superfluous information—he had never been able to learn just how much he did know. This I interpreted as a modest request that he would like to have the document translated. That I did; and though neither English nor American was his language, but the beautiful pastoral dialect spoken in the Far-Down East, he seemed to understand. Thenceforth, whenever I passed his window, he was seen wrapped in ecstasy, gazing intently at the diploma as at an object of devotion, with a Latin dictionary which I had lent him in his hand. At last he mastered the words for himself, and rushing in to me, with the elegantly framed parchment in his hand, he pointed to it in triumph and said:

"Wall neow, I know all abeout it, an I'm a doctor neow, jes like yeow; ain't I?"

This man is beating me all to pieces in practice.

"We wos both docteers," said a farmer, "an' won docteer don't kneow more'n anuther."

I am aware that many will impute the causes of my non-success to myself, and will have it so, say what I may. But I cannot subscribe to their opinion, savor as my opposition will of self-sufficiency. The best proof that I am right is found in my knowledge of the career of no less than ten first-rate men, who likewise went through hospitals. I have been at the pains to consult these gentlemen, and, though my lucky brethren may find in the substantial agreement of the unsuccessful ones' views a point for joking about misery loving company and foxes losing tails, I beg to suggest that these views are the product of very bitter experience, and at least worthy of attention.

I would like to ask those favored gentlemen who lecture on the needs of this great and growing country for more doctors, if they were ever at a place in its limits where there was a deficiency of the article? "A deficiency of the good article." Ah! very well; but is it not just this wholesale making of doctors by the medical schools and their professors which brings about this state of things? What would you have? Surely it is the interest of the schools to have as many students as possible, and the interest of each professor to graduate as many of his class as he can. One of the colleges in New York turned out a man as M.D. who, to my personal knowledge, could not tell the branches of the aortic arch, and whose examination in other departments than anatomy was proportionally brilliant. It is time some one should speak out, and, as one who knows, I arraign our medical colleges as opening the ranks of the profession to a body of men who, as a class, are absurdly incapable, and, in consideration of the interests of life and death to be committed to their care, criminally incapable. I have known of the leading medical college of New York, some years since, graduating a man who never soiled his hands in the dissecting-room, never touched a body, and whose reading comprised only that labor-saving machine, Neill and Smith's Compendium; that is, he was never known to have any other medical work, and if he did, it was certain that N. and S. taught him all he knew. This man got a certificate of study from a doctor in whose office the student had never entered, and systematically "cut" lectures. Of course this bogus doctor, as bogus as the possessor of any bought diploma, this "*virum probum*," had an ignoble and brief career. Not at all. The time that other and more conscientious men gave to study, he gave to developing the qualities vulgarly known as "brass" and "cheek;" to influencing politicians successfully in his favor, and to drawing up "*Rules to be Observed during Treatment;*" and to-day his income is not less than ten thousand dollars yearly. Can we wonder that the community favors quacks? Nay, I have no hesitation in saying, and I say it boldly, that I would prefer at any time the services of an intelligent "quack" to such a "regular" doctor. I know that parallel cases exist in all the institutions in the great cities, and if this be the case there, what must be the depth of knowledge of the country-school graduate, who is from a free school, from where the "professors" go out in the highways and hedges and compel students to come in?

The sublime trust with which some members of the profession speak of the general acceptance of a medical college degree as an educational guarantee is a patent instance of faith without works. What nonsense the professor utters, who says to the President, in the face of an admiring audience, smiling "graduates," and after music by the band, "These candidates have shown by their examinations," etc. A large proportion have shown great ignorance by their examinations; have copied stale text-books to construct that wonderful literary production, the "Thesis;" have given certificates of three years' study, and of a moral character, from one whom they may have seen once in their lives; and have attended mythical lectures. How does the faculty know that candidates have attended two courses of lectures? The faculty is sure of one thing, and you may be sure of it. The candidates have shown, by handing over greenbacks, that they have *paid* for the lectures, which they may have never heard; for dissection, which they may have never prosecuted; and for graduation, which they are sure to get. I know this picture of a first-class medical college is not the received one. I only know it to be true. Why! you are requiring Spartan virtue of men when you expect them to stickle about how much a man knows, when he has paid for what he expects to get, and when "putting him through" is the condition of getting to more pay for similar easy graduation. There is no doubt of it. Our medical colleges are run with one great object in view—to make money for the professors, and the competition between them is fierce, not as to the quality, but the quantity of the material they turn out.

When I mention these facts to the nabobs of the profession, I do not find them denied, but it is usually said, "Oh! yes; but the inferior men drop off, and if a man really sets about to learn something for himself, he must distance the ordinary run of new graduates in a short time." For the reasons gone over I believe this view to be all fiction. It is useless to expect the laity to inquire whether a man has had hospital experience, and has studied abroad. If the absurd "ethics" of the profession permitted a man to tell people his qualifications in public print, it would be different. This exclusion from advertising I deem sufficient answer to those who contend that medicine is no worse than any other business or profession, law perhaps excepted. What earthly objection is there to advertising? "Honor, dignity of the profession," says the great and wealthy Dr. Blank. Of course, Dr. Blank, you don't need it; but how about us poor devils? What reason is there for my not letting people know I have had special opportunity to study eye diseases, or fractures, or what not? We stand by, and let charlatans reap all the benefit of this great means of success. But why let medical colleges advertise?

Diploma.

Dr. J. H. Pooley, of Yonkers, has been appointed Professor of Surgery in the Starling Medical College, Ohio.

HOMŒOPATHY IN THE MICHIGAN UNIVERSITY.

To the Editor of The Medical Record.

Dear Sir:—Having read with interest in a recent number of your valuable journal Prof. E. S. Dunster's statement in reference to the action of the Michigan Legislature and the Board of Regents, and also with regard to the status of the faculties of medicine in the University, I beg to submit another view, which I believe to be not only more correct, but less calculated to mislead the minds of your readers in regard to the degree of union, or fusion, of the faculties in the Homœopathic and Allopathic Colleges in the Medical Department.

The regents, in adopting the resolution "That a Homœopathic College be established," of course implied that a definite curriculum of studies should be pursued, to qualify the homœopathic student for the honor of the degree of doctor of homœopathic medicine. This curriculum, it was enacted, should be equal to that required of the student of the "old school" in the department. In conformity with established usage this degree should be conferred by the regents only, upon the recommendation of the faculty of the Homœopathic College. Now, as the faculty of any college consists of the teachers specially employed to qualify and recommend the candidate for the degree, it will at once be seen that the professors of anatomy, of physiology, surgery, chemistry, and obstetrics, of the "old school," must be united practically with the newly appointed professors of homœopathic practice and materia medica to constitute such a faculty. The merely technical dodge, that they are by appointment members of another faculty, will not convince any one to the contrary, in opposition to this single prominent, practical fact.

The professors of the "old school," therefore, bear the same relation as teachers, examiners, and final judges of qualifications for the degree in homœopathy as they do to the class of candidates for honors in the regular college. By another technical dodge, the bearing of which will readily be seen, the regents have excused the faculty from affixing their signatures to the diplomas by abolishing that time-honored custom, which has hitherto existed in all the departments of the University.

I think, therefore, it will be conceded by every one who prefers facts to mere subterfuges, that as practically more than two-thirds of the faculty of the so-called College of Homœopathy are also members of the faculty of the college of regular medicine, that the fusion of the faculties of the department of medicine is nearly complete; and further, that of whatever of merit or demerit may in the estimation of the regular profession attach to such a union for the promulgation of the dogmas of homœopathy, the majority of the faculty of the regular school will be entitled to a full share.

Very respectfully,
A. Sager, M.D.

Ann Arbor, *Aug.* 17*th*, 1875.

University College Hospital of London.—The vacancies recently caused by the promotion of Dr. Ringer and Mr. Christopher Heath, have been filled up by the appointment of Dr. G. Vivian Poore, of Charing-Cross Hospital, to be Assistant Physician, and Mr. Arthur E. J. Baker, Surgeon to the City of Dublin Hospital, to be Assistant Surgeon.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from August 22d, 1875, *to August 28th,* 1875.

Williams, J. W., Assistant Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 159, Department of Dakota, August 17, 1875.

Hall, J. D., Assistant Surgeon.—When relieved by Assistant Surgeon Brown, to comply with par. 3, S. O. 135, c. s., A. G. O.

Brown, P. R., Assistant Surgeon.—Assigned to duty at Fort Shaw, M. T. S. O. 164, c. s., Department of Dakota.

NAVY.

A Board of Naval Surgeons, to consist of Medical Inspector A. L. Gihon, President, Medical Inspector A. C. Gorgas, and Acting Assistant Surgeon J. J. Sowerby, has been ordered to meet at Annapolis for the examination of candidates for appointment as Cadet Engineers and Midshipmen at the Naval Academy.

Medical Items and News.

Disturbance at the General Hospital at Ghent.—It is reported that one of the physicians or surgeons of the General Hospital in Ghent, in consequence of some dispute, the cause of which is not mentioned, called out to the young gentlemen, "You are all fools" (cretins). Thereupon they, being deeply offended, wrote to the hospital committee demanding an apology, and stating that, in the event of a refusal, they would adopt decisive measures. The committee answered that the letter was rude and threatening, and that no notice would be taken of it. Thereupon the students announced that they would quit the hospital; and, in order to avoid any detriment to the patients, they would stay for three days to allow them to obtain substitutes. After this interval the whole of them vacated the hospital, and the committee at once applied to the other students, but no one would accept the advantageous terms that were offered. The practitioners of the town were afterwards applied to, but only four responded, which is a small number to take the place of between twenty-five and thirty students.

An English County Court Verdict.—The *Lancet* has a communication to this effect:

I was called to attend Mrs. N—— in her confinement at seven o'clock in the morning. I remained two hours. During that time she made very little progress. As it was a case of natural labor, and all was right, I thought I might safely leave her for half an hour, as I lived within three minutes' walk from the house. When I returned the child was born. I tied the cord, removed the placenta, stopped two hours, as she threatened to have hemorrhage, and attended nine days. At the end of that period she paid half the fee, promising the rest in a few days. I summoned for the remainder. The judge nonsuited, because I was not there when the child was born.

Yours, &c.,

A. W.

London, *July*, 1875.

Dr. F. D. Lente's health having been impaired by hard work, he proposes to spend the coming winter in Palatka, Florida.

Instruction in Psychological Medicine.—The Royal College of Physicians of London have adopted the resolution "That the registrar prepare and submit a regulation to the College that students who wish to qualify for the examination for the membership or license of the College may substitute, if they so desire, a three months' course of clinical instruction in the wards of a lunatic asylum for the same period of attendance in the wards of a general hospital."

Aberdeen University.—Dr. Stevenson, of Edinburgh, succeeds to the Chair of Midwifery and Diseases of Women and Children, in the University at Aberdeen, Scotland, left vacant by the death of Dr. Inglis.

The Grape-Just.—M. Dumas, the discoverer of the application of sulpho-carbonates to the destruction of the phylloxera, appears to have met with two serious competitors for the 300,000 francs prize, in the persons of MM. Ph. Zoeller and A. Grote, of Vienna. They propose xanthate of potash dissolved in water. This substance is cheaper than the sulpho-carbonate, and, like it, evolves sulphuret of carbon, deleterious to the insect, but with the advantage that it does not yield hydro-sulphuric acid, which is injurious to the vine.

The System of Drainage of London.—*The Lancet*, of August 14th, says that after a labor of sixteen years, and the expenditure of more than four millions of pounds sterling, the undertaking known as the metropolitan main drainage system has been brought to completion. The whole of the sewage of more than four millions of people, living on an area of over 117 square miles, is now diverted from the Thames, near London, and discharged at Barker, near Crossness, fourteen miles below London bridge, into the river at high water, in order that the ebbing tide may carry it out to sea. Until the opening of the western pumping station, at Pimlico, on the 5th of August, the sewage of an area of nearly fifteen square miles of West London, including Chelsea, Fulham, Brompton, Kensington, Shepherdsbush, Wormwood-scrubs, Notting-hill, and Hammersmith, was discharged into the Thames at Cremorne. The last portion of the metropolitan sewage has now been diverted from this part of the Thames, is now lifted to the height of eighteen feet, and then finds its way into the low-level sewer, which carries it to the Abbey Mills pumping station. So recently as 1815 a penalty was incurred by discharging house drainage into the sewers, which were only intended for surface drainage. Up to that period the cess-pool system remained supreme in London. The nuisance of this system, however, became so intolerable that in 1847 a law was passed making cess-pools illegal, and requiring all householders to do what was a penal offence before 1815—that is, to drain into the sewers. In the meantime, however, the Thames was becoming a gigantic open sewer, and three warnings, in the shape of cholera epidemics in 1833, 1849, and 1854, combined with the powerful incentive to action in the matter produced by the effluvium of the Thames upon the legislators in the Houses of Parliament, led to the inauguration of the metropolitan main drainage system in 1859. The system is now complete, but the sixteen years during which it has been in progress have passed without the solution of the problem how to utilize this vast amount of sewage now cast into the sea. This still remains to be solved.

The N. W. Medical and Surgical Society should have been credited with the resolutions on the Presbyterian Hospital, instead of the Medical Board of the N. W. Dispensary.

Original Lectures.

THE GENERAL MANAGEMENT OF FRACTURES.

A LECTURE DELIVERED AT BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK,

By A. B. CROSBY, M.D.,

NEW YORK.

[Phonographically reported for THE MEDICAL RECORD.]

GENTLEMEN:—I shall occupy the hour to-day in considering some clinical points with reference to the management of fractures. I do not mean that I am to enter into a discussion of the subject of the treatment of fractures, but I simply wish to present for your consideration a few points, the neglect of which is likely to prove disastrous to the patient in many instances, and the observation of which is likely to inure to his benefit. I may with propriety first allude to the signs indicating the presence of a fracture, and these are (1) deformity, (2) preternatural mobility, and (3) crepitus. Now, the deformity which may exist in a given fracture may consist of shortening alone, or this may be combined with distortion, which may be even so great that the portion of the limb below the point ot fracture may lie at a right angle to the portion above the point of fracture. When you come to examine a limb, then, in which a fracture is supposed to be present, you will first notice that the parts present an unnatural appearance; that there is a deformity.

Preternatural mobility is not subjective, but objective; that is, the patient cannot move the limb himself, but the surgeon can move it in such a manner as to show where the point of motion exists, and so determine precisely at what point the fracture has taken place. Such an examination enables us to determine that there is a new point of mobility, and that the patient cannot himself move the limb as well as he was able to do previous to the receipt of the injury. It not infrequently happens that any effort on the part of the surgeon to move the limb, for the purpose of determining the point of fracture, causes a spasmodic contraction of the muscles, which gives rise to such pain that if he would make the answer to this question positive, he will be obliged to conduct his examination while the patient is under the influence of an anæsthetic.

The sensation of crepitus is objective, therefore obtained by the surgeon, and is produced by either rubbing the broken surfaces of bone together, or holding one in a fixed position and rubbing the other against it. Crepitus may be distinguished in two ways; first, by the sense of hearing; second, by the sense of touch. It can be detected by the sense of hearing when the bones are situated close to the surface of the limb, as in the tibia, but when the bone is covered to a considerable depth by the surrounding soft parts, as in the femur, crepitus is more commonly detected by the sense of touch.

Now, men do not ordinarily get fractures under circumstances specially suited to the convenience of the surgeon, but they are quite as frequently at some distance from their homes, or the place where they are to receive appropriate permanent treatment. The first question, then, for the surgeon to decide will be, can the patient be carried home, and, if so, how is it to be done? If the fracture involves an upper extremity, the limb can usually be dressed according to some approved plan, and the patient permitted to walk or ride home according to his convenience. If fracture of one or more of the ribs has taken place you can support them in a position of comparative immobility by means of adhesive plaster applied in broad strips around the chest over the seat of fracture, and the support thus given will enable the patient to reach his home much more comfortably than he would otherwise be able to do. Usually persons suffering from fractured ribs prefer to walk rather than to ride, and in general you will see them walking with the greatest ease, with a sort of preternatural solemnity and rigidity of the body, lest motion occur at the seat of fracture. If the fracture involves a lower extremity or the spine, your patient will be unable to help himself; in other words, he must be carried to the place where he is to receive the attention and dressings necessary to retain the bones in the proper position for union to take place. The means for carrying a patient under such circumstances will usually consist of some sort of improvised stretcher, such as I described to you at our last meeting, and need not be again described in this connection.

Now, the shortening which occurs in fracture is the result of muscular contraction, and such contraction, if permitted to go on unrestrained, will serve to drive the ends of the broken fragments of bone into the soft parts. The injury naturally inflicted in this manner will act as a stimulus to excite still farther spasmodic contraction of the muscles, and the result is, not only pain to the patient, but irritation of the soft parts, which may be followed by an inflammation that will unfavorably affect the final union of the fragments of bone. The first indication, then, in the treatment of a fracture is to coaptate the fragments, and then retain them in position. This can be done temporarily for the relief of the suffering of the patient, and avoiding injury to the muscles or other tissues, if you will yourself, or have an assistant, seize the foot or ankle, and draw the limb down, and hold the muscles quiet by such extension. For in this manner the irregular muscular contraction will be overcome. There is, therefore, a great advantage in having an attendant, who shall hold the ankle or foot in his hand while the patient is upon the stretcher, and who shall maintain sufficient extension to overcome muscular contraction, and so keep the parts quiet. The surgeon, however, may relieve himself or his assistant in this respect, to a great extent, by giving some firm, equable, lateral support to the fragments themselves. This can be done by taking a shingle, pieces of a cigar-box, or pieces of heavy pasteboard—cover them with cloth if you choose—and then secure two or more of these pieces to the sides of the limb by means of strips of cloth or a roller bandage. In the country you may very likely find stiff rye or wheat straw, and by taking fifteen or twenty of these straws, and tying them together, so as to make a little bundle or junk, you can very soon extemporize a most admirable lateral support for a fractured bone. Several of these straw junks can be placed lengthwise of the limb, sufficient to surround it, and then secured by strips of cloth or a roller bandage. Before applying any lateral support whatever, it is important to have an assistant make sufficient extension to overcome all muscular contraction, and then these supports can be applied, and secured even above the seat of fracture. In this manner the tendency to muscular contraction can be reduced to its minimum.

For, as you are well aware, muscular contraction causes the fibres of a muscle to shorten, and proportionately increases the transverse diameter of its belly, and a firm, equal lateral pressure prevents this increase in transverse diameter, therefore prevents muscular contraction. It is in this manner, then, that you can prevent such contraction which gives rise to displacement of the fragments, and consequent injury of the soft parts.

If the patient is to be carried farther than can be consistently done on a stretcher, a bed may be placed in the bottom of a wagon and the patient laid upon that. He may lie completely in the horizontal position or half inclined upon the side, while the limb should be supported by some attendant, who, at the same time, should maintain a moderate amount of extension.

Your patient having reached his home, the question arises, when is the permanent dressing to be applied? or, in other words, *when is the broken bone to be set?* I am surprised that some surgeons have been found who advocate leaving a fracture practically without dressing for some days, upon the theory that the material necessary for the repair of a broken bone is not thrown out until seven to ten days following the occurrence of the injury, and therefore that it is a matter of indifference whether the dressing is applied before that time or not. Such a theory is exceedingly pernicious. The sooner a fracture is dressed the better it is for the patient; for, if you leave it subject to irregular muscular contraction, there will be more or less laceration of the soft parts by the ends of the fragments, irritation will be produced, and undue inflammation will be much more likely to be present. It seems to me that the question is settled beyond discussion, and that the surgeon who neglects to reduce a fracture as soon as possible after it has been received, and secure it in position by proper dressings, is certainly guilty of a misdemeanor, if not of actual crime.

ARRANGING THE BED.

A patient who has sustained a fracture of the thigh or spine cannot be treated successfully upon every bed you may happen to find in the house. In the country, if you ask for the best bed to place the patient upon, you will very likely have shown to you a nice feather bed, mountain-high, in which, if you place your patient, you will find that you have "plunged him in a gulf of dark despair." Such a bed is soft and delicious enough for certain purposes, provided it is not too highly scented with the aroma of the past, as it is very apt to be; but you will find that you cannot successfully treat a fracture while your patient is surrounded by any such mass of feathers.

The only bed upon which a fracture can be successfully treated is one which affords a dead level surface. Now when you come to practise in the country you will find that the bedsteads frequently are fastened together with a cord, and almost invariably this will be found to be loose, so that every move which is made upon the bed will give rise to notes which are anything but harmonious to a finely trained musical ear. The first thing, then, that I usually found myself obliged to do in the country was to obtain a hammer and pin and a bed-wrench, and "cord up" the bedstead. I was then accustomed to have pieces of light, dry board sawed of such length that they would drop between the rails of the bedstead and rest upon the cord, so that it was in this way floored over with boards, which furnished a level surface. The common slat bedstead now in such extensive use answers a very good purpose, provided the slats are sufficiently close together to give a flat, unyielding surface when the patient is laid upon them. Upon such a surface there should be placed some kind of a mattress. A couple of hair mattresses make one of the very best of beds upon which to treat a fracture.

The ordinary excelsior mattress may be used, and over this one or two comfortables can be placed, which will render it somewhat more agreeable for the patient, but none of these coverings should be sufficiently thick and soft to permit the body of the patient to imbed itself into the surface upon which it rests.

Other things being equal, a person can lie longer, without suffering serious inconvenience, upon a hard than upon a soft bed. If the patient is suffering from a fracture of the spine, or has suffered from any injury which is accompanied with great loss of power, and will necessitate the parts below to be subjected to persistent pressure, we are very apt to have the ordinary results which follow long-continued pressure and loss of vitality, namely, bedsores. It is not safe, therefore, to attempt the treatment of a patient who has received a fracture or other serious injury of the spine upon an ordinary bed. For this purpose the best bed that can be employed is the air or water bed. This consists of an india-rubber bag or flattened sac of the requisite dimensions, which can be filled with air or water, whichever you may prefer to employ. In either case the sac should be only moderately distended, that is, it should be left a little yielding, so that, when covered with a blanket, it will yield just enough to pressure to fit the back, or whatever part of the body may come in contact with it, perfectly and equally throughout; for perfectly equable pressure never resulted in a bedsore. It is only persistent unequal pressure upon prominent points which is likely to give rise to bedsore, and if the same persons, in most cases, who have bedsores, had been as persistently in one position upon an air or water bed, such sores would not have occurred.

MANAGING THE DEJECTIONS.

The management of the dejections from a person who is confined to the bed with a fracture sometimes becomes a serious matter. It is for this reason that many surgeons, when treating a fracture of the lower extremity, have one thick mattress, in the central portion of which is a round or square opening, and in the floor of the bedstead a trap-door that can be opened or closed at pleasure from the under side. The cavity in the mattress is filled with a cushion sufficiently thick so that no depression is left in the surface when it is in place, and when the patient wishes to have a movement from the bowels it falls out as the trap-door is unfastened. With such a convenience he may have a dejection in comparative peace. It is usually necessary to have a urinal independent of the vessel which is used beneath this opening in the bed, and the greatest care must be exercised in keeping the mattress around the opening, and also the patient's clothes, perfectly dry and clean.

It does not always happen, however, that you can have such a mattress and the arrangement I have just alluded to, and the next best arrangement that can be employed is the ordinary dust-pan. Cover such a pan with a folded sheet, or towel, having previously pushed a towel before it for the purpose of protecting the dressings upon the thigh, and then raising up the sound leg the thin edge of the dust-pan can be easily carried well under the body of the patient and receive the dejection. If the discharge is so copious as to be likely to soil the clothing, the patient should arrest it, the pan be removed, a fresh sheet applied, and then replaced. The dust-pan can be placed beneath the patient much easier than the bed-pan, as, if the latter is used, you will be much more likely to disturb the fracture, while the former answers a most admirable purpose.

I have already supposed that you have got your patient home, and into bed, and now I wish to speak of a few points with reference to the permanent dressings that are to be applied. In the first place, preparatory to this, the limb had better be washed. It may seem superfluous to you that I should make this remark, for it is to be expected that any neat surgeon would see to this at once; but I can assure you that although expected, it is not always realized, and limbs are fractured and dressed, which are not unusually clean, and as it is to be shut in for some time the amount of filth confined in this way may be very great. It is desirable, therefore, to have the limb first washed thoroughly with soap-suds. If there is any extension to be made, it should be done by means of adhesive plaster applied to the sides of the limb and secured by a roller-bandage. There is one precaution that should be always observed before applying the plaster, and that is, to shave the limb. This may seem to you like another insignificant suggestion, but you will find it very valuable, and if you omit its observance you may be necessitated to undo the entire dressing which otherwise is well applied.

BANDAGES.

The question of bandages is one upon which, first and last, there has been a great diversity of opinion. The two forms of bandage in common use are the ordinary roller bandage and the bandage of Scultetus. Now the question arises, when to use a bandage, and where to use a bandage; and these are very important.

I think it may be laid down as a law that the roller bandage never should be carried around the limb over the seat of fracture, unless you are applying some permanent dressing.

The reason for this rule is that if you are using a movable dressing, one which is to be removed to enable you to get at the surface of the limb over the seat of the fracture, you cannot do it without the greatest inconvenience if you employ the roller bandage.

The roller bandage, however, should be applied usually from the tips of the extremities up over the limb for a certain distance. For instance, in case of fracture of the forearm, the bandage should be applied over the fingers, hand, and to the wrist, but should never be carried over the forearm. In this special instance there is an extra reason for this, to which it is well to direct your attention, and this is, such bandaging will destroy the parallelism of the radius and ulna, and secure union with the fragments in a position to destroy all supination and pronation, and therefore, to a very great extent, the future usefulness of the limb. The theory in dressing these fractures you are already familiar with. With fracture of the humerus, the roller bandage may be carried over the forearm to the elbow, for the purpose of preventing the occurrence of swelling below the seat of fracture after the permanent dressings have been applied. With reference to the lower extremity, the same principle holds good; and with fracture of the thigh, you will be obliged to bandage the foot, ankle, and leg to the knee, and then leave the seat of fracture uncovered by this form of bandage.

In fractures of the lower extremity, however, there is no objection to applying over the seat of fracture the bandage of Scultetus, which is the most beautiful bandage ever devised, and the one that affords the most equable compression. This bandage can be applied and laid over the limb without disturbing the line of fracture, and that cannot be done with the common roller bandage.

The bandage of Scultetus is made in the following manner: First, tear a strip of old cloth about two and one half inches wide and as long as the part you desire to cover. Next tear several strips, about the same width and long enough to go once and a half around the thigh, or whatever limb you may be treating. Now, having laid the first strip in one direction, take one of the strips which are to go around the limb, and place it across the first strip at a right angle, the middle of the latter strip corresponding to the middle line of the former. A second transverse strip is then laid upon the first, overlapping it by one-half its width, and so you will go on until the strip, representing the length of the part to be covered, is itself covered by these transverse pieces. These pieces should then be fastened by two rows of stitches at the point where they intersect each other. The bandage is then complete and is applied to the posterior surface of the limb with the single strip running lengthwise. Then beginning at the lower strip one end is passed around the limb, while the other is made to overlap it, and the second strip follows this, and so on until the last one is turned, which is to be fastened with a pin, and the entire bandage is secured. When you wish to examine the limb, all that is necessary to do is to remove the outside splints, unfasten the upper strip, and turning back one end after another you soon reach the bare surface. Now by such palpation as is necessary you can determine whether or not the fragments are being retained in proper relation with each other.

There is one caution which should always be borne in mind by the surgeon when dressing a fracture, and that is, *all* dressings, in order to be borne and to be useful, must compress the limb in all places equably. If you are to apply a bandage over an extremity up to near the seat of fracture, it must be applied in such a manner as will give a perfectly equable and firm pressure. If there is any difference to be made, it should be the firmest at the tip of the extremity and less firm as you go up the limb; but as a rule, the more equable the pressure the better it will be borne, and the better will be the result.

You are usually instructed in the books that the primary dressing applied to a fracture should be a loose dressing, but if you see the limb soon after the accident has occurred, and apply a firm dressing equably around the seat of fracture, and then cover it with a splint and other dressings, you will not have swelling. Where swelling occurs it is almost invariably due to the fact that the dressing has not been sufficiently equable, that is, the pressure upon the limb has been unequal, compressing it firmly at one point and very much less firmly at another.

After dressing a fracture, if the patient complains of pain, and you examine and find the extremities discolored and cold, there is only one inference to be made, and that is, that the circulation of the limb has been interfered with, and that it is due to the fact that the dressing makes unequal and too firm compression of the limb. Under such circumstances it is worse than a crime for the surgeon to allow the dressing to remain unchanged, and upon this point I cannot insist too strongly. It should be undone at once.

There is another point, and that is, after fracture there is liable to be a certain amount of spasmodic jerking of the muscles, which gives the patient more or less annoyance, and in some instances a good deal of pain.

This is usually due to the fact that the dressings do not give the muscles sufficiently equable pressure.

The only splints with which you can treat a fracture well are those which can be moulded so as to perfectly fit the limb over the entire surface, and such a splint can be applied with considerable firmness, and in that manner overcome all unequal muscular contraction. In some cases, when the patient is nervous and bears the pain badly, it may be necessary to resort to anodynes and nervines, until the habit is somewhat acquired of quietly yielding to the demands of the broken limb. But in general, if the dressings are equably applied, but little inconvenience will be experienced in this direction.

GENERAL DETAILS.

In addition to these cautions with regard to bandages, I may say a few words with reference to some points in the general management of the patient suffering from fracture. You will find that when a patient who has been leading an active life becomes suddenly confined to the bed, the bowels and bladder will be usually quite sluggish, and you will be obliged to solicit their action. At the end of two or three days, therefore, after the fracture has occurred, it is well to administer a simple saline, and so secure a movement. This is a matter of considerable importance, and should never be lost sight of. The same thing may be said with regard to voiding the urine. Some persons find it exceedingly difficult to empty the bladder while lying in a horizontal position, and it is quite necessary that you should use some precaution in this respect. It may be well for you to instruct some intelligent attendant how to use the catheter, so that in case the patient is unable to empty the bladder, he can be relieved without unnecessary delay, and without calling for your assistance, perhaps in the night.

There are some persons who are entirely ignorant of the sensations and pain produced by over-distention of the bladder, and will have the idea that all their peculiar feelings depend upon the fracture from which they are suffering. It is necessary, therefore, that your inquiries should turn directly towards ascertaining the condition of the patient in this respect.

DIET.

I believe that the diet of a patient with a fracture is quite as important as that of a patient with a fever. The person who is suffering from a fracture must have nutriment, not merely sufficient to repair the ordinary waste that is going on in the body, but he must have a little surplus of vitality added, for the repair of the fracture. The food should be simple, but thoroughly nutritious. More persons are thrown into a surgical fever from starvation than from a generous supply of simple but nutritious food.

STIMULANTS.

The question of stimulants is one which has an important bearing. There may be a certain amount of shock produced by the accident, perhaps collapse, and the stimulants are to be employed until reaction is well established, after which it is probably better that they should be discontinued.

I refer especially, however, to that class of patients who have been accustomed to the use of stimulants prior to receiving the fracture.

It is well to cure the drunkard of his habit, but it is not well to commence the temperance reform with a drunkard who has just received a fracture. I have seen the experiment when inebriates have been perforce rendered temperance men during the treatment of a fracture, and I have more frequently seen ununited fractures in this class of persons than any others. If the person has been in the habit of indulging in alcohol, you should not attempt to force temperance upon him during the treatment of a fracture. You may perhaps diminish the amount, but the patient should receive a certain amount of stimulation daily; and it is not only comforting to the patient, but it may be the sole condition upon which you will obtain a successful union of the fractured bones.

There are certain other questions to which I will direct your attention at our next meeting.

Original Communications.

ON THE TREATMENT OF PHAGEDENIC GANGRENOUS VENEREAL SORES.

By D. B. SIMMONS, M.D.,

CHIEF SURGEON OF THE KEN HOSPITAL, YOKOHAMA, JAPAN.

Few who have had any considerable private or hospital practice are not acquainted with the difficulties often experienced in arresting the destructive progress of what are known as phagedenic gangrenous venereal sores.

Within the last two years several cases which will admit of this classification have come into the hospital for treatment. The hot iron, nitric, chromic, and carbolic acids were all tried in turn, as well as "Ricord's born enemy of phagedena," with what we believe to be the average rate of success.

The last four cases, and one especially, which we shall refer to, were almost entirely treated, however, by, if not a new process, one which was productive of such satisfactory results as to warrant us in earnestly recommending its trial. *This consists in the continuous immersion of the diseased part in hot or warm water.* The case referred to had been treated, before falling into our hands, by the usual means for nearly two weeks, and, though not progressing so rapidly as at first, was still advancing. Both labia, minora and majora, the fourchette, clitoris, and portions of the urethra had disappeared, and all the region occupied by the external organs of generation had been converted into an immense irregular cavity, discharging an unhealthy, sanious, and very fetid pus. The patient was also suffering much pain, especially if the parts became in the least dry. A sitz-bath of the ordinary size and form is what is required. In this is placed a cushion, or large bathing-sponge, to render more tolerant the long-continued position in the tub, required for obtaining the more satisfactory results. In the case referred to, the matter seemed to be increased by the use of the bath for thirty-six hours, when it began to change in character. Instead of the sanguino-serous pus which was discharged from it before, it had assumed a more healthy, "laudable" form. The ragged edges sloughed off, and their dark-red or purple color presented a bleached-out appearance. From this time the progress of the disease appeared to have been arrested.

Through the dirty gray slough at the bottom granulations began to appear, and the healing up of the part, as far as the extensive loss of substance would admit, was completed in two or three weeks. As uncomfortable as the position was, the patient would not remain out of the bath for a moment longer than necessary, on account of the great relief it afforded from the burning, smarting pain.

We found, after the change had commenced for the better, that it was not necessary to keep the patient so continuously in the bath, but only on alternate hours. In the interval, iodoform was sprinkled freely over the part. It is our opinion that the destructive agency is to be found in the peculiar or specific character of the discharge, and that the water simply removes or dilutes it, so as to destroy its action, the same as it would with a caustic. We do not see why this explanation is not as true and satisfactory as that the matter from a soft chancre has specific qualities, and is capable of reproducing itself, under favorable circumstances, to almost any extent.

A very bad case of multiple chancres in a female, of an inflammatory type, was treated by us in the same manner, with the same satisfactory results, about the same time.

In the male, when the organ is sufficiently large or long, we have found its immersion in a tumbler or cup of water answered the same purpose.

We now adopt this plan in the treatment of all soft chancres that are troublesome, and are satisfied that if it is properly carried out they may often be cut materially short in their duration.

All are acquainted with the suddenness with which soft chancres often get well after long and varied modes of treatment. We believe this to be consequent upon a change in the character of the discharge, or in its irritating corrosive action, which allows of the natural healing of the wound. The same is practically effected by the dilution or removal of it by the water.

Irrigation, we have no doubt, would answer the same purpose, and could be arranged so as to subject the patient to far less inconvenience and discomfort.

We think, however, that the water should be at as high a temperature as possible in either case.

ON THE EXISTENCE OR NON-EXISTENCE OF OZONE.

By T. C. STEARNS,

ROCKFORD, ILL.

Meeting with the assertion that ozone is probably produced by the bleaching of solutions of permanganate of potassium by organic compounds (Brande and Taylor, p. 113), and knowing that medical men generally suppose ozone to be the product of the reaction between oxalic acid and permanganate of potass, my attention was called to the subject by the fact that, theoretically, carbonic oxides [$C.O_2$] is the product of this change according to the following equation—

$$\underset{\text{Permanganate Potass.}}{2\,KMnO} + \underset{\text{Oxalic Acid.}}{5\,H_2C_2O_4} + \underset{\text{Water.}}{H_2O} =$$

$$\underset{\text{Carbonic Oxide.}}{10\,CO_2} + \underset{\text{Manganic Hydrate.}}{2\,MnH_2O_2} + \underset{\text{Potassic Hydrate.}}{2\,KHO}\ 3\,H_2O$$

Proceedings were then instituted to determine the truth experimentally.

A tall glass bottle was fitted with a cork admitting a thistle tube, and two other tubes, each connected with glass vessels containing lime water, the one through which the air contained in the apparatus was forced to deprive it of its carbonic oxide, and the other for the purpose of testing the air in the apparatus after the reaction had taken place. A solution of permanganate potassium was now poured through the thistle tube into the large bottle, and immediately after, a solution of oxalic acid. As soon as the reaction had taken place, as indicated by the decoloration of the mixture, the air above it was forced (by the filling of the bottle with water through the thistle tube) through the last bottle of lime-water, when a plentiful deposit of carbonate of lime was seen. Interest being aroused by the above, we concluded to continue our experiments with the various modes of producing ozone.

In the bottom of the tall glass bottle a few crystals of permanganate of potassium were placed, and covered with sulphuric acid; a test-paper (saturated with potass. iodide and starch) hung in the tube was instantly colored by the decomposition of the iodide and production of the blue iodide of starch. As we had before discovered that acid fumes will produce the reaction, even where no ozone exists, as over the fumes of hydrochloric acid, we made the following test to ascertain whether the acid fumes or the ozone produced the change of color in the test-paper: The cork of the bottle was fitted with one perforation for a thistle tube, and another for a tube connected with a bottle containing an alkaline solution. The reaction between the permanganate and the sulphuric acid was again caused to take place, the air in the bottle forced out as before, and after passing through the alkaline solution, *would not give reaction for ozone.* The experiment for the production of ozone, by the slow combustion of ether, conducted by dropping a hot glass rod into a beaker containing ether, was then made, and as usually performed gave the reaction for ozone, but as soon as the "acid fumes" were removed by pressing the atmosphere contained in the beaker through an alkaline solution, *no reaction took place* when the test-paper was held in its current. While with only the above experiments before us we are not warranted in asserting that ozone does not exist, they point forcibly to this conclusion; and were we to adopt it we should not be alone, for the existence of ozone has been denied by some chemists and numerous observers, among the latter of whom we may place Dr. J. F. Baldwin, who in an admirable article on "The Relation of Ozone to Disease," says: "I have tested for ozone in all kinds of weather; in the midst of fog, mist, rain, sleet, and snow; in hot weather and in cold; when the day was clear and when it was cloudy; but never—not even during a thunder-storm—have I been able to detect the slightest trace of ozone." —*Am. Jour. Med. Sci.*, Oct., 1874.

Doubts may also be reasonably entertained of the production of ozone by the electric spark, for there is certainly no need to attribute to the substance called ozone, the decomposition of the iodide in the test, for we have in the electricity itself the most potent decomposing agent known, and instead of pointing to the conclusion that ozone is produced, the fact that the jar of oxygen through which the electric spark has been passed will retain its property of decomposing the iodide for a lengthened period, should only show that the gas, like a Leyden jar, is capable of holding its electrolytic properties for a considerable time.

The author holds to the question *sub judice*, however, and intends to continue so to do until opportunity presents itself to prove certainly that ozone is produced by passing the electric spark through *pure* oxygen, as, reasoning from analogy, we suspect the presence of a compound to which we would attribute the reaction, especially as some authors assert that the production of ozone is facilitated by the presence of certain compounds, or the possibility of the power of the gas to retain its electric properties.

Rockford, Ill., *Aug.* 10, 1875.

Reports of Hospitals.

ST LUKE'S HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

SCIRRHUS OF THE BREAST.

THE point of special interest in this case related to the dressing. The breast had been removed in the usual manner, no axillary glands being involved, but since the operation the patient has suffered severely from pain in and about the wound. This pain had been very markedly relieved by applying cloths which had been wet in a solution of boracic acid.

Pieces of muslin are dipped in a saturated solution of this drug, and then dried. Before being applied they are dipped in water.

SLIGHT BURN—ABSCESS BENEATH THE PECTORAL MUSCLE.

One or two points suggested by this case may be of some practical importance. The patient, a strong, healthy man, received a very slight superficial burn upon the palmar surface of the forearm near the wrist-joint. Before this ulcer had healed a swelling made its appearance under the pectoral muscle upon the same side, which went on to suppuration. The course of treatment pursued was to delay opening the abscess until pus had come well towards the surface. This is the rule which very commonly governs the management of such cases in the hospital, unless there is present severe constitutional disturbance. Another point of interest in the case was the remoteness of the abscess from the ulcer, if so be that there was any relation between them,—without local manifestations at any point intervening.

When the abscess was emptied a deep cavity or fistulous tract was left, which had nearly closed. It had been washed out occasionally with the red wash, a remedy quite commonly employed in such cases.

WET STRAPPING.

It has been regarded as an item of some importance in the treatment of old ulcers, such as are of specific nature, found upon the lower extremities, that, if strapped, the plaster should be permitted to remain as long as possible without change. Whether the strapping meets the indication or not, cleanliness, etc., are of course, to govern the surgeon in every case. With this object in view several cases have been dressed with what have been called wet straps, which are prepared by passing strips of adhesive plaster through hot water instead of heating them in the usual manner. In these instances the water was also carbolized.

It seemed quite certain that the ulcers had healed more rapidly under this plan of treatment than any which had been adopted, and it was very evident that the plaster did not get loose as quick as when heated over a spirit lamp.

ECZEMA RUBRA.

A number of cases of this disease had followed facial erysipelas, and, after trying all the remedies ordinarily resorted to in the treatment of this affection without benefiting the patient, tincture iodine was painted over the entire surface. As a result, the disease was in every way aggravated for one or two days, but when the artificial irritation subsided, the change produced in tissues by the iodine permitted the cases to go on to rapid and complete recovery.

DOUBLE COLLES' FRACTURE.

One point of interest in their case was the occurrence of this fracture in both forearms at the same time. The patient was a very fleshy woman, aged about forty-five years.

Another point of interest was the excellent results obtained by a most simple method of treatment. The fractures had been dressed with straight board splints six or eight inches long, the anterior splint reaching down to the joint, the posterior one two or three inches upon the dorsum of the hand, and then secured with a roller bandage.

The deformity was very trifling. Motion was very good in every direction and was daily improving.

In all these cases passive motion is commenced at the end of the third week.

Progress of Medical Science.

RESPIRATORY PERCUSSION.—In the last number of the *American Journal of the Medical Sciences* Dr. J. M. Da Costa describes a method of physical examination of the chest, by means of which he claims that the diagnosis of pulmonary affections may often be greatly facilitated. By respiratory percussion is meant percussion after a full inspiration or a full expiration, the breath being suspended for the moment while the examination is being made. For the sake of furnishing a standard for comparison between health and disease, a description is given of the sounds produced by respiratory percussion in the normal subject. The general effect of percussion after a full inspiration is to increase the resonance and the volume of sound, and to raise the pitch. Percussion after expiration appears to be of less practical importance, though it occasionally affords valuable information. Its effect is to diminish the resonance and lower the pitch.

The practical application of the respiratory method of percussion would appear to have a very wide range. In all chest affections, where percussion is used, the modification may be employed with advantage. It often serves to clear up a diagnosis where the ordinary physical examination leaves the case doubtful, or where the usual signs tend to mislead. Thus, in bronchitis an abundant accumulation of secretion in the air-passages may obscure the breath sounds, and even give rise to a certain degree of dulness on percussion. But if the suspected region is percussed while the breath is held, after a full inspiration, the percussion-note again becomes clear, and the doubt is removed. On the other hand, should the dulness remain unchanged after inspiration, we may infer that the pulmonary tissue has suffered damage. In acute lobar pneumonia respiratory percussion may reveal commencing resolution before any crepitation has appeared, and thus become available with respect to prognosis. In certain cases of organic heart disease, where the symptoms lead to a suspicion of tubercular complication, this method of percussion, by causing the local congestion in the lungs to disappear, will greatly assist in the diagnosis. In pleurisy, with effusion, where the fluid is at the lower part of the lung, and some doubt exists as to whether it may not be a case of chronic pneumonia, by means of respiratory percussion the diagnosis may be rendered perfectly certain. If after a forced inspiration the percussion develops a sharply defined line between the region of dulness below and that of resonance above, it is an effusion; while if the dulness changes in part, or remains unchanged without being well-defined, we may be sure that the lung is consolidated. Again, in those cases where in connection with an effusion in the pleura we get a blowing respiration at the back, with dulness on ordinary percussion, and it is a question whether pneumonia coexists with the pleurisy, a full inspiration expands the lung tissue, if it be simply compressed or condensed, and the percussion sound becomes clear and resonant.

Obviously in phthisis, too, respiratory percussion may be made of great service in determining the existence of a deposit that is very slight in amount, or in ascertaining the degree of progress of the disease, by magnifying, as it were, the ordinary percussion signs, and by enabling us more accurately to define the limits of the disease. If both lungs are about equally affected, the presence of deposit will be denoted by the fact that respiratory percussion does not give an increased, but rather a diminished resonance, and after a forced expiration the dulness will be markedly increased. In the case of cavities the effect of a full inspiration upon the percussion sound is to change the tympanitic, cracked pot, or amphoric notes to simple dulness, together with a higher pitch and a feeling of greater resistance.

In pneumothorax respiratory percussion may be made available, it is claimed, to ascertain whether perforation between the lung and pleural cavity still remains pervious or not. If a full inspiration increases the resonance, the former is probably true; while if the resonance remains unchanged after inspiration, the aperture has closed. This, however, is not stated with complete certainty, and the necessity for further investigation is admitted. In emphysema the vesiculo-tympanitic note elicited by ordinary percussion is either not at all changed after forced inspiration, or but very slightly so in case the emphysema is not marked.

SYPHILIS OF PARENTS AS AFFECTING THE OFFSPRING.—Dr. Drysdale, in a note to *The Medical Press and Circular*, ranks himself on the side of those who hold that syphilitic children can only be born when the mother is syphilitic. This view, opposed by the authority of Trousseau, Diday, Benton, Depaul, Lee, Acton, and other writers of great note, is sustained by Notta, Berkeley, Hill, Gascoyen, Cullerier, and Owse, of Christiania, and others. Dr. Drysdale cites the following instances in support of the latter opinion: A gentleman contracted syphilis in 1850. He married some years afterwards, and now has three blooming children. Another gentleman had syphilis in 1851, and his wife contracted syphilis from him directly. She had no children. Four years later the gentleman married again, and now has a fine family of sons and daughters. Two gentlemen of his acquaintance contracted syphilis to his knowledge, and have had large families of healthy children. The case is not so where the woman has contracted syphilis. A lady contracted syphilis from her future husband, who bit her lip. He was suffering from a secondary affection of the mouth. She married, but had no children by this husband, who died in three years. A few years later the lady again married, and gave birth to a dead child. In view of such facts as he has collected, he feels warranted in assuring his *male* patients that if they have been free from syphilis *some two years*, they will not have syphilitic children should they become fathers.

THE CURE OF SPLENIC LEUKÆMIA BY PHOSPHORUS.—Dr. Wilson Fox has published a case in which he corroborates Dr. Broadbent's observation on the influence of phosphorus in this disease. The patient was a baker, thirty-seven years of age, and on admission to hospital showed great signs of anæmia of the mucous surfaces and nails. He was emaciated and so feeble as to be hardly able to stand without assistance. He had frequent slight rigors, was pyrexial, and sweated profusely. In the splenic region there was felt a hard resistant mass, pushing outwards the cartilages of the tenth and eleventh ribs, and reaching backwards nearly to the spine. It was smooth, not nodulated, and moved with respiration. The liver was not enlarged, nor were the superficial lymphatics, except a few in the inguinal region. The blood taken from the finger was paler than natural, and the white corpuscles were nearly twenty times their normal number, from thirty to thirty-five being seen in the field of the microscope. Besides the corpuscles, which were of two sizes, there were a large number of molecules, which were aggregated together in large masses.

At first phosphorus was given in doses of one-fiftieth of a grain three times a day. Afterwards the dose was increased to one-thirtieth of a grain at the same intervals. No other treatment was pursued at the time. Under this treatment the excess of leucocytes diminished, the weight increased, and other symptoms were ameliorated. At the end of about four months he discontinued the medicine. About a month later he had continued to improve, and his weight had risen from 124 to 147 pounds. The spleen, however, had not diminished in size, but there was an increase in the white blood-corpuscles. In this case a large number of remedies—among them quinine in large doses and iron—had been tried faithfully without success, and Dr. Fox congratulates himself that we are now possessed of a cure for at least some cases of a disease so painful and hopeless as this generally proves to be.—*The Lancet*, July 10, 1875.

NEURALGIA TREATED BY NERVE-STRETCHING.—Mr. Callender, of London, reports the case of a man who had undergone amputation of the forearm twice—the second time owing to imperfect healing and a painful condition of the stump. The second wound healed, but he was liable to attacks of pain in the stump. About seven weeks before his presenting himself to Mr. C., he struck the end of the stump, and since then the pain had greatly increased. The limb was cold, the skin glazed and of a dusky color, the surface tissue was inelastic, and the skin was moved with stiffness over the subjacent fascia. He complained of twitchings in the forearm as well as in the arm, though in the latter to a less degree; but his chief distress arose from the constant pain, sometimes burning or shooting, but liable to become suddenly much more severe, and at times to be almost unbearable. Various measures for his relief were resorted to. but without success, and an operation was decided upon. The median nerve was cut down upon, and found to be thickened in itself and in its surroundings. After dissecting it away from the tissues about it for the distance of about an inch, it was forcibly stretched by pulling it downwards for about three-quarters of an inch. The wound was then closed. Some pain occurred on the following day, but none afterwards. One month after the operation the wound had healed, the arm was warm and had regained its natural appearance, and the patient was in all respects well.—*The Lancet*, June 26, 1875.

On Overwork.—Dr. Samuel Wilks, of London, has taken occasion to reply to some of the views expressed in regard to overwork among intellectual men. He infers that in many instances they are not suffering from overwork, but from just the opposite state of affairs, and that in many others the result is due to a selection of occupation not congenial or interesting to the patient. Of course the amount of work which each man or woman is capable of performing is dependent on their temperament and especial powers, and can only be gauged by their individual capacities. Many people whose minds are never idle live to a good old age; when one object of study or pursuit is accomplished or becomes irksome, then it is time to take up some other occupation, and so divert the mind into other channels. Dr. Wilks finds that most of the persons who come under his care for overwork are those who have no occupation or object of interest other than their bread-earning employment.—*The Lancet*, June 26, 1875.

The Significance of the Temperature of the Uterus.—From various examinations Bärensprung came to the conclusion that the child in utero possesses a higher temperature than the mother. The deduction from this, that the pregnant womb must be warmer than the vagina, axilla, or rectum, was established as correct by Schroeder, who made the former above that of the axilla and above that of the vagina. Schroeder and Cohnstein both utilized this fact to determine the life or death of the fœtus and the existence of pregnancy. Dr. W. Schlesinger, however, insists that a preliminary question to be answered is, whether the non-pregnant uterus does or does not have a higher temperature than the vagina; whether, in fact, the difference is due to pregnancy. He therefore undertook a series of measurements, using a thermometer with a curve like a sound, and having a perforated metallic sheath around the bulb to guard against breakage. Observing all due precautions and taking the average of many observations, he finds that in non-pregnant women the temperature in the vagina is higher than in the axilla, in the cavity of the uterus than in the vagina, and consequently in the uterus than in the axilla, in the vagina than in the rectum, in the uterus than in the rectum, in the cervical canal than in the axilla, and in the cervix than in the vagina. The higher temperature of the pregnant uterus over the vagina cannot, therefore, be ascribed to the pregnant condition alone, though the author agrees that the greater functional activity at that time would naturally favor it. Dr. Hölme, too, in his notice of Dr. Schlesinger's article, calls attention to the statements of Claude Bernard and others, that the temperature of the large parenchymatous organs is higher than that of the blood supplied to them, which is ascribed to their functional activity. Dr. S. would also expect to find the temperature of the pregnant uterus during labor higher than before that process set in.—*Wien. med. Jahrbb.*, p. 427, 1874.—*Schmidt's Jahrb.*, 166, ii.

On the Diseases ascribed to Dentition, and their Pathological Admissibility.—Dr. L. M. Politzer is inclined to differ very decidedly from the views held by A. Vogel regarding dentition and the diseases connected with it. He maintains that in the great majority of cases there is no such thing as catarrhal stomatitis accompanying the eruption of each tooth, the process going on so gradually and easily as not to be a source of inflammatory irritation, while the ulcers on the tongue, constituting stomatitis ulcerosa, are due to friction on the tooth, which has already penetrated the gum. Nor does he think worthy of greater consideration the idea that the increase of the fluids of the mouth during dentition averts the danger of brain symptoms. He is much more inclined to attribute diarrhœa at this period to the ingestion of unsuitable food than to the irritation of dentition. He cannot recognize the periodicity and association with the eruption of the teeth, which Vogel maintains regarding various skin diseases. The various diseases occurring during dentition may all be observed at other times, and we should not attribute them to this cause unless all other known causes are absent. As to the great reflex irritability said to exist in childhood, and to be increased during dentition, he argues that it is astonishing to observe how well a young child will bear severe operations, very painful pathological conditions, and other powerful influences, without the development of reflex irritability; and why should we attribute to the comparatively easy and unimportant process of dentition an increased irritability which is not claimed for important physical, histological, and chemical changes going on in various important organs?—*Wien. med. Woch.*, xxiv., 49–51, 1874.—*Schmidt's Jahrb.*, 166. ii.

The Action of certain Drugs on the Secretion of Bile.—Professor Rutherford, in an address before the members of the British Medical Association, in August last, detailed some experiments he had performed on dogs in reference to biliary secretion. These results were as follows: Croton-oil was not found to be an important hepatic stimulant; podophyllin stimulated the liver enormously, and caused the production of a bile almost the same as that which was secreted without its action; aloes was a very distinct hepatic stimulant, and produced far less intestinal irritation than podophyllin; rhubarb never failed to increase the secretion of bile, almost the same as that secreted without its help, while it caused less intestinal irritation than either podophyllin or aloes; senna stimulated the liver, but not to the same extent as rhubarb, and it seemed to render the bile more watery; colchicum caused the secretion of a large amount of biliary matter; taraxicum stimulated the liver, but not to any very great extent; scammony excited the liver, but not to a marked extent; calomel increased the secretion of bile in one experiment, but three others appeared to show that it was not a hepatic stimulant, at all events in the dog; gamboge produced strong intestinal irritation and profuse purgation, with a fall in the secretion of bile, probably owing thereto; castor-oil showed decided purgative action, but produced a slight stimulation of the liver; alcohol did not increase the secretion of bile. It thus appears that podophyllin, rhubarb, aloes, and colchicum had the most marked effect in increasing the biliary secretions of the dog; and as to their mode of operation, it appeared most probable that they were absorbed and directly affected the liver, though on this point it was not professed that anything had been definitely settled. These experiments were opposed to those of Dr. Bennett, in so far as that he found podophyllin diminished the amount of bile secreted. The apparent explanations of this difference, was thought to lie in the fact, that in Professor Rutherford's experiments the dogs were kept fasting seventeen or eighteen hours, while in Dr. Bennett's the dogs had their usual food. As regards calomel, the results were certainly opposed to clinical experience with man, though it was shown that in the dog, as in man, calomel produced purgations, and could also salivate.—*The Lancet*, August 14, 1875.

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ARMY HYGIENE AND CIRCULAR NO. 8.

The medical profession is always ready to welcome a circular from the Surgeon-General's office. In the time of active war we remember that some of these were very terse and quite disturbed our official equanimity. But with the return of peace, under the intelligent supervision of the Surgeon-General, this branch of the war department set itself to work not only to collect all the valuable information as to health and disease which the war had furnished, but to place the army in all regards upon the best health footing. It has already made available to our army surgeons a medical and surgical history which shows the most careful tabulation and analysis. It is a contribution to the medical literature of the country, and an honor to the medical corps. Circular No. 8 is a report somewhat different from those which have preceded it, but having high claims to the careful study of all army officers as well as of surgeons and physicians. It is a recognition that a knowledge of hygiene is a very important prerequisite to efficient medical service in the army. The varied locations of posts, and the manifold changes which are necessary, together with unfavorable conditions which have to be abated where they cannot be wholly avoided, naturally introduce to the army medical officer the whole subject of sanitation. It is not remarkable that our ablest and most effective work on practical hygiene should be from the pen and experience of the Professor of Military Hygiene in the British Army Medical School. Our American army surgeons are on the alert in the same direction. We hope that the time is not far distant when every private soldier will have his pocket-book of sanitary information similar to that which Sir Garnet Wolseley prepared for the British service, or to Gordon's Soldier's Manual of Sanitation. No class of men have larger opportunities for careful investigation on all matters of locality and of health than our army medical men. Many of them had had large experience in the field as well as in the camp, and now in a less active period have the finest opportunity for study and investigation. It is well that these studies should, as in the inquiries which gave rise to this Circular, be largely directed to sanitary matters. The great losses of armies, whether in camp or in field, are not accidents, but such infectious diseases as are fostered by bad regulations.

Liebermeister, speaking of the late Prussian war, says: "The singular exemption from disease was due in a great measure to the advances which the science of hygiene has made during our time." No better devotion to his army service can be rendered by the surgeon at the present time than an exact study of this department. On it the effective force both of a regular and volunteer army must ever depend. The Surgeon-General did wisely in assigning Assistant-Surgeon Billings to this duty. His large experience and his known assiduity and enthusiasm in this department has led him to devote much time to it. He has evidently spared no efforts to secure material for a valuable report. General Order 125 of the War Department made it the duty of all surgeons at posts to make full sanitary reports. Some of these are in a merely perfunctory way, but most of them show an intelligent appreciation of the importance of their observations.

Dr. Billings comments on the subjects related to the health of soldiers in the following order:

I. Habitations, including barracks, quarters and guard-houses with their appendages.

II. The food of the army and its preparation.

III. The clothing of the army.

IV. Hospital and medical supply.

It is readily appreciated that these are all matters fundamental to the condition of the army.

Defective ventilation is recognized as an evil in most barracks and quarters, but the barrack plans of 1873 are some improvement. Cleanliness and neatness of apartments is among the most valuable and difficult lessons to teach the soldier, and it must commence in strict regulations as to all quarters. This can only be attained when the government itself provides the necessary accommodation.

The special report of Surgeon Swart shows care as to the examination of the air of quarters. He throws doubt upon the correctness of the test generally used for organic matter, and gets results different from those of Hubbard and Parkes. In this and other reports the connection between imperfect ventilation and increase of diseases of the respiratory organs is everywhere recognized. The importance of bath-tubs as a supply to each post is rightly insisted upon. The fine uniform too often covers filthy linen and a soiled body. Habits of personal cleanliness must be enforced. The single bunk system is an improvement, as also the care as to proper bed furniture. In a hygienic point of view too little attention is given at home as well as in army life to this part of our clothing. Wire mattresses and hair pillows, and clean linen and woollen coverings are largely influential upon comfort and health. Bed-clothes are the clothes we dress in about one-third of our time, not even counting the greater permanency of sickness. The Reports contain very many plans of hospitals, with descriptions. A comparison of these, and their study in relation to convenience and sanitary availability, is very important for every army officer. It is quite evident that the evils of hospitalism are not confined to civic life or fully relieved by tent methods. The effect of dampness on rheumatic and pulmonary diseases is well illustrated in the report as to Fort Monroe. We find but little new as to the arrangement of cess-pits. Those at West Point show how much depends upon porosity of soil. Where liquids are readily absorbed the drier fecal matter, protected from hot suns, is often left for a long time without injury to health.

The plan referred to in Columbia, South Carolina, is feasible in many cases. "Each company has a sink at a proper site. The sinks are deep trenches covered with a movable building. They are disinfected with lime and fresh earth. When necessary the buildings are removed and placed over new trenches, and the old trenches filled to their surface with earth."

A review of the section on Food shows that the ideas of a proper army ration have improved with an increased knowledge of dietetics. The soldier is no longer confined to jerk beef and hard tack, flavored with a gill of whiskey, but has a due share of variety in his daily food. There is some complaint that the rations do not yet correspond with the theoretical tables which measure the amount of force in each fibre, but these are not yet so perfect as to be absolute standards for comparison. As in the use of acids and various vegetables, we need to watch the results of a careful experience. The value of onions and of tomatoes, with their malic acid, has come to be well understood. The culture of the mushroom is recommended where feasible. The use of baking-powders is suggested for scouts and expeditions, but they should be made by known recipe, and not used as put up by most venders. The soldier suffers more from bad cookery than from bad food. We are glad to see that attention is also directed to this. The water supply for cooking and drink is derived mostly from cisterns. In many parts of the country the ground-water is saturated with the products of vegetable decay, or in somewise unfit for use. Where the cisterns and the roofs are properly cared for, cistern water is undoubtedly to be preferred. The experience of the war suggested some valuable improvements in army dress. The new blouse and forage-cap are well approved, and the brass-screwed boots are more serviceable than those formerly provided. It is interesting to see the care with which the whole subject of clothing, in its adaptation to the soldier, is being studied by army medical men.

We have been much interested in comparing reports from different posts and from different sections of the country. Such stations as that at Fort Steele and Fort Yuma show the effect of dry atmosphere. In the first, catarrhal diseases are spoken of as common. "It would seem that the very dryness of the air produces irritation by rapid evaporation from the mucous membrane of the air-passages. At least an unpleasant sensation of dryness and constant throat irritation is very perceptible to the new-comer. This irritation is enhanced by the deep expansive inspirations by which the organism apparently compensates the diminished amount of oxygen in the atmosphere. This dryness of the atmosphere, although in the beginning unpleasant and irritating, appears at the same time inimical to the development of serious pulmonary diseases.

The disease known as "Mountain-fever" is noticed as occurring at such places as Fort Bridger and Fort Steele, Wyoming Territory, and at several other localities. It is often referred to at outposts in the far West and in the Rocky Mountain region. Assistant-Surgeon Swart refers to it as a "remittent fever susceptible to the action of quinine, and well recognized as being indigenous, although the station seems free from intermittents. It has been called a 'modified typhoid'—typhoid without the enteric symptoms. The cases I have seen rarely reached this typhoid condition. . . . . Most of the cases occurring in the garrison are seen at the first manifestations of disease, and are returned to duty in three or four days after treatment by mercurial purges, and twenty or thirty grains of quinine daily. If, however, the disease be permitted to run unchecked for a few days, the patient falls into a condition undistinguishable from typhoid, which often proves fatal among miners, settlers, prospecting and surveying parties."

Assistant-Surgeon Greenwell also calls it a remittent fever. "The most prominent symptoms are headache, severe aching through the whole body, insomnia, furred tongue, frequent full pulse, and constipation. Chills are infrequent. The efficiency of large doses of quinine proves the malarial origin. The mountaineers treat it with their panacea—sage tea—quite successfully. It is said that persons afflicted with ague rapidly recover in the same climate, as was illustrated by troops transferred from the Florida swamps. It is noted that erysipelas is more frequent than at frontier posts at lower altitudes, and is apt to complicate the most trivial injuries. The same fact was noted in a paper read last year before the American Health Association by a Pacific army surgeon. As erysipelas is usually regarded as zymotic, its history in this regard should be carefully studied. The favorable effect of the climate at Camp Douglas, Utah Territory, on asthma, is well illustrated by Surgeon Vollum. It is the boast of the people, as well as the physicians, that asthma cannot exist there excepting under a relieved and modified condition. Mormons, then, are not likely to die for want of breath. We should like to know more about the prevalent view that the bite of a skunk is sure to be followed by hydrophobia (p. 279). It is quite important to find whether such an animal poison has all the specific character of typhoid fever, cholera, etc., so as to have but one origin, or whether it comes from some condition of system. An illustration of what small-pox can yet accomplish when unrestrained by vaccination, is afforded in the description of Fort Shaw, Montana Territory. "The Blackfeet Nation of Indians, from Dec. 2, 1869, to May 1, 1870, lost 1,400, out of a population of 7,000 or 8,000, by this disease." They would have lost many more, but a part of the nation had already suffered from the disease. We commend the fact to the Indian Commissioners.

Outside of the strictly hygienic sphere there are many descriptions of localities which give us some idea of the wonders and exposures of frontier life.

We commend the entire report to the close study of all army officers, and the civil physician and surgeon will find in it much that is interesting and profitable. Such reports do much to elevate the standard of health both in military and civil life. If our legislators could only appreciate how much the welfare and defence of the nation depend upon well-sustained validity, instead of nursed and chronic invalidity, such as is often created by defective sanitation, they would not be slow to improve all army arrangements bearing on the health of the soldier.

THE MARINE HOSPITAL SERVICE OF THE UNITED STATES.

This department of governmental relief to the sick sailor is gradually assuming important proportions. From the small monthly sums deducted from the wages of the crews of vessels of all kinds, a fund is formed which is expended under the administration of the Marine Hospital Service, a subdivision of the Treasury Department, in their care and treatment when sick and disabled. This relief, we learn from the Annual Report just issued, includes medical and surgical treatment, medicines and appliances, food, shelter, hospital clothing, washing, nursing, etc., and the expenditures cover the cost of the foregoing, together with that of isolated treatment of contagious diseases, the transportation of patients to hospital ports, the burial of the dead, etc., and all other disbursements on account of the service, except for repairs, etc., to hospital buildings. During the fiscal year 1874, 400,452 days of relief were furnished, at 91 ports, at a cost of $400,951.58, to 14,364 seamen, 12,605 of whom were treated in hospital for an average period of 31.6 days each, with a mortality of about 3½ per cent. Hospital dues were collected to the amount of $346,676.31 at 130 ports, leaving $54,275.57 to be made up in the deficiency appropriation by the government. The average annual cost of each patient was $27.91, but only $24.14 of this amount was defrayed by collections of hospital money, the net cost to the government for each patient being thus $3.77. By the judicious administration of the service in the hands of Dr. J. M. Woodworth, Supervising Surgeon, the usefulness of this mode of relief has been much enhanced, and system imparted to a branch which, but a few years since, was conducted with anything but order and regularity, and with much greater expense to the department.

Reviews and Notices of Books.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Vol. III. Chronic Infectious Diseases. By PROFESSOR CHRISTIAN BAEUMLER, PROFESSOR ARNOLD HELLER, and PROFESSOR OTTO BOLLINGER. American Edition. New York: William Wood & Co., 27 Great Jones Street.

NEARLY one-half of this volume is given up to syphilis, and the subject is treated in a thorough and even manner, while the style is excellent, making the article a very readable one. As regards the long debated question of the time at which the disease originated, the author thinks there is good reason to believe that it was neither carried over to Europe from the West Indies by Columbus's men, nor did it originate with the army of Charles VIII., where it committed such frightful ravages in 1494–5, the probabilities being that it was known in very early times, though apt to be classed with other diseases, such as leprosy. The violence of syphilis may be said to have abated very considerably since the fifteenth century, though in some localities it occasionally assumes a particularly intense character. The reader will naturally be interested in the author's views, as to what lesions of the disease may produce infection. It seems to be inferred that all secondary lesions have this power, though it is doubtful whether the substance of gummy tumors and ulcerating tubercles—the lesions of tertiary syphilis—have any such quality. In the majority of cases where secondary lesions produce the disease it is communicated by the act of *kissing*. This statement may explain one of the ways in which innocent persons take the disease, and should lead to an appreciation of an important point—the danger which may follow from indiscriminate kissing, especially of children by nurses and friends. More than this, married women not infrequently take the disease, and thus may be the unconscious agents which spread it.

As to the question of the transmission of syphilis by vaccination, the author holds the opinion that it is so transmissible.

If syphilitic children be vaccinated, the pustules may appear to be perfectly normal, and yet if the pustular matter be employed for further vaccination, syphilis may follow.

And yet, on the other hand, it may not follow, or both syphilis and vaccinia may occur together. These facts, the author states, he has derived from the records of quite recent cases, and they will give some color to the objections that always are urged against the use of humanized virus, when the question of compulsory vaccination is brought up.

As to the unity or duality of the chancre poison he inclines to an opinion that is somewhat at variance with those commonly held. He believes that syphilitic infection does not possess the pure and simple character observed in pathological experiments. There is, he says, but one syphilitic poison, but not in the sense given to it in the doctrine of unity. He does not regard the contagious principle of chancre as identical with this poison. It is a pathological agent by itself, but a far less constant and uniform one than the poison of syphilis, and may be generated *de novo*, under certain circumstances, quite independently of syphilis.

The whole subject is treated in a clear manner, and it may be regarded as an excellent exposition of the subject. Copious references are made to all the best known syphilographers, those of our own country not being neglected.

Somewhat over 200 pages are devoted by Bollinger to infection by animal poisons, especial attention being paid to glanders, malignant pustule, hydrophobia, and the foot-and-mouth disease. Though the author is but little over thirty years of age, as we see by the biographical notice at the commencement of the volume, he has already contributed largely to medical literature. Having acquired a general medical education, he then devoted himself to veterinary medicine, of which he is now a professor in Munich. He has therefore had the requisite experience to make him a proper authority on those diseases which are common to man and animals. The author, in a note to the American edition, proposes the use of new terms, which he afterwards adopts, as substitutes for "contagium" and "miasma," terms used by Liebermeister and others, the former to indicate a poison generated *within* the body, the latter a poison generated *without* the body. Bollinger proposes to call the one *endogenous*, and the other *exogenous*.

It seems a pity, however, now that we are getting into the way of using and understanding the terms "contagium" and "miasma," in the sense just given, that we should be made to change them for others, both of which have already two distinct meanings, one in histology, as indicating the way in which cells multiply, and the other in botany.

One of the most noteworthy facts which Bollinger brings forward is the communicability of the foot-and-mouth disease from animals to man. This is usually effected either by the consumption of unboiled milk, or by direct contact of the hand during milking with the vesicles on the udder, or by contact with the saliva of infected animals.

The disease fortunately is benign, but precautions should be taken when such animals are known to have the disease, and their milk should never be consumed unless boiled.

In malignant pustule, we are told, contrary to the authority of Bouley, that the specific poison is due to parasites, which Davaine first observed, and called bacteridia. These organisms are believed by the author to be the actual poisonous principles, and not merely the carriers of it, as some hold. The disease is sometimes contracted in killing or dressing animals, or by eating the diseased flesh, or insects, as the blue-bottle fly, may carry and insert the poison, or it may be inoculated from man to man, or finally the poison may enter the body with the air and food. The best treatment is deep crucial incisions into the part, followed by cauterization. Generally a single thorough cauterization will effect a cure.

The remainder of the book, about 100 pages, is occupied by the "Diseases of Migratory Parasites," and is very largely illustrated by wood-cuts, many of which are by the author.

The chapter devoted to Trichinæ will naturally attract a great deal of attention, as it contains a large amount of new and interesting material. As the treatment of the disease has as yet been entirely unsatisfactory, the author has given a great deal of attention to the prophylaxis, and laid down careful rules for the inspection of pork. He claims that American meat is peculiarly liable to the disease, especially the salted bacon. Of 622 sides examined at Rostock, twelve were found trichinous, or one in fifty-two. In Elbing one in twenty contained them. Salting and smoking, unless done very thoroughly, afford no protection against infection. Microscopic inspection of the meat should be insisted on, as has been practised in Brunswick since 1863, with excellent results.

General instructions should also be given as to how these meats are to be cooked, and hogs should be protected by proper legislative enactments against trichinæ, so as to stop the sources from which they may come. This volume will be closed with the impression that it is a peculiarly interesting one. The large amount of new material that it contains makes it a valuable contribution to the literature of the day.

FIBRO-PLASTIC INFILTRATION INTO THE LIVER OF THE FŒTUS AND NEW-BORN, CAUSED BY SYPHILIS. DE QUELQUES MANIFESTATIONS DE LA SYPHILIS CONGÉNITALE, ET CET. By T. DE ROCHBRUNE. Paris. 1874.

THE author, under the supervision of Gubler, has studied very carefully certain lesions of hereditary syphilis, first described by the latter, and has given a very clear description of them, while at the same time he confirms and elaborates Gubler's views. The clinical portion of the author's work is very full, as he gives details of nineteen observations from which he drew his conclusions; as these are given by the author in an aphoristic form, we quote them as giving a fair analysis of his book.

He thinks that he has demonstrated:

1st. That the fibro-plastic infiltration into the liver, one of the most serious of syphilitic lesions, and discovered by Gubler, is much more frequent than was supposed.

2d. That commencing in the early months of intra-uterine life it shows itself shortly after birth.

3d. That it is invariably accompanied by other manifestations peculiar to syphilis, and that it rarely fails to coexist with changes in the thymus and lungs, in which R. states that he thinks that he has discovered a lesion not yet known.

4th. That the most marked symptoms of the lesion of the liver consist in a peculiar dark wine-red discoloration of the lower extremities, and in dropsy.

5th. That the dropsy is caused by hepatic obstruction, and that it is not, as claimed by Desruelles, a secretion of the peritoneum.

6th. That the peritonitis is not secondary to the infiltration, as it is but rarely met with.

7th. That another important point is the character of the urine, which contains hematoglobuline and albumen.

8th. That in the two forms described by Gubler, there exist varieties little known, which confirm his opinion, tending to assimilate the infiltration to the gummata and to syphilitic sarcocele.

9th. That in the coexistence of secondary and tertiary lesions of newly-born syphilitic children, there is reason for thinking that there is a period of transition.

10th. That inoculation of the liquid from a syphilitic infiltrated liver produces that disease.

11th. That the influence of the father is most potent in producing these lesions, as he is the sole cause of the infiltration.

12th. That the hepatic infiltration is exceptionally grave.

13th. That a rational treatment should be administered with promptitude and energy.

14th. That taking into consideration how they are borne by the patients, mercury and iodine in combination should be used.

15th. That mercurial friction and sublimate baths are so efficacious that internal treatment will not be necessary.

16th. That mother or nurse, whether healthy or syphilitic, should be treated with the child.

It is well, perhaps, to point out certain errors in statement and conclusion in this quite good brochure. Rochebrune says that the father alone is the cause of this form of liver lesion—in other words, of the syphilis. Now this is entirely at variance with our knowledge, and with the results of clinical observation, since it is impossible that a child so saturated with syphilis could be born of a mother who did not become syphilitic. This is a return to the hallucinations of Von Barensprung which very much surprises us. As to the question of treatment there are inherent disadvantages to the use of sublimate baths upon infants, as well also are there drawbacks in the use of mercurial frictions, which, though *sometimes* useful in infants, cannot wholly replace a well-regulated internal mercurial course. The last conclusion strikes us with some surprise. It is sufficient to know that if a mother brings forth so thoroughly a tainted offspring as to have visceral lesions, the imperative duty of the physician is to treat her energetically, as she must of necessity be in an active stage of syphilis. As to the nurse, it certainly is not less than criminal to put such a child to a woman who has not had syphilis, for fear of her infection, and if she is syphilitic, the duty is obvious. As critics we must say that it is somewhat astonishing to find such careless reasoning on some subjects, while others are so intelligently handled.

Manual of Comparative Anatomy and Physiology. By S. Messenger Bradley, F.R.C.S., Senior Assistant Surgeon Manchester Royal Infirmary. Third edition. Published by Lindsay & Blakiston, Philadelphia, 1875.

A handy book, and one which the constantly increasing class of natural history students will find well worth owning. The second chapter, devoted to the "Theory of Evolution—Sketch of Evolution of the Animal Kingdom—Phylum of the Sub-kingdoms," seems rather too conspicuous, considering, as the author tells us, "the evidence is imperfect." The arrangement of the subject-matter throughout the book is good; and the numerous definitions in the text may render very acceptable aid to many who are not proficient in the classics, but are, nevertheless, earnest workers in science. The author starts out with a thorough explanation of many of the more important terms now in use among naturalists, and adds a pretty full glossary at the end of the volume.

The descriptions and definitions are very concise and clear, and the matter very liberally illustrated by wood engravings. Of the wood-cuts we cannot speak in the highest terms, regarding them as works of art; yet they answer their purpose perhaps fully as well as more highly finished work.

As a manual of the subjects of which it treats this book will certainly be acceptable to students, and particularly to the many professional men who find time only that is snatched from other duties, and who, from such a convenient exhibit as is here made, may contrive to take in much valuable information which is lost in efforts to glean from more ponderous volumes.

To those who are interested in the theories of "Evolution," the three plates given on pages 8, 9, and 10 will prove acceptable; the first "showing in Outline the probable Channels through which the various Sub-kingdoms have passed during their Evolution;" the second, "Phylum of the Sub-kingdom of Vertebrata, showing the probable genealogical arrangement of the classes and principal orders;" the third, "Phylum of the Animal Kingdom, showing the probable genealogical arrangement of the principal classes." The book has the merit of being an exposition of the latest and most approved arrangement of the animal kingdom, and at the same time one remarkably attractive throughout in its adaptation to the student's uses. There is a system in the arrangement of the subjects which is admirable, particularly as compared with the contents of many books of this character.

Lessons in Elementary Anatomy. By St. George Mivart, F.R.S., etc., Lecturer on Comparative Anatomy at St. Mary's Hospital, author of the "Genesis of Species." Macmillan & Co., London, 1873.

This little book will be found to be in a great measure what it claims, a *vade mecum* for the student in human morphology, and that type of structure to which man's body belongs. Great prominence is given in the work to the skeleton, for which the author gives several good reasons, and adds: "Moreover, it is a recognized maxim with teachers of (exclusively) human anatomy that a thorough knowledge of the bones is not only a necessary preliminary to other anatomical knowledge, but that the latter is acquired with comparative ease when the first has been well mastered. I have deemed it advisable to act on this maxim in teaching the anatomy generally of man and of the animals herein referred to."

The book is divided into lessons, the first of which is devoted to a general view of the animal kingdom. The various types of structure are shown by small wood-cuts, and throughout the body of the work the illustrations are profuse and valuable. Through such books, which are of convenient size, easily handled in spare moments, the professional man, as well as others more nearly identified with such studies, may gather a goodly store of knowledge.

Triplet Births.—M. Depaul lately submitted to the Academy of Paris the placenta of a triplet born at Bordeaux. The three children were females, and were, when the case was reported, still alive and in good health. The placenta formed an entire mass; the three cords were perfectly distinct; one was inserted in the centre of the placenta, another on the edge of this organ, and the third on the membranes. There were three amniotic pouches, which were rather difficult to trace on the specimen; but, according to the report of the medical gentlemen who forwarded it, there were, during parturition, three distinct ruptures of the membranes, which took place before the birth of the children. By a remarkable coincidence, the Paris papers have reported that a *concierge* in Paris has given birth to triplets, two boys and a girl. The mother is aged thirty-five, and has been confined for the third time. The boys, who were in the same amniotic sac, were born first, at an interval of an hour between each; the girl, who was in a separate sac, was born half an hour after the last boy. The three are alive, well formed, and sufficiently strong—particularly the first boy and the girl.

Correspondence.

RECIPROCAL INTERESTS OF PHYSICIANS AND PHARMACISTS.

To the Editor of The Medical Record.

Sir:—The sensible article by Mr. Sayre, in a recent number of your journal, should attract the attention of the profession to some of the practical points in which doctors and apothecaries are mutually concerned. His suggestion, that distinct directions for the use of the medicine be written on the prescription, is judicious and proper; as the adoption of that plan would prove a safeguard to all parties. For it cannot be denied, as shown by Mr. S., that physicians have occasionally made the most fearful errors in writing prescriptions, which might, but for the intelligence and vigilance of the apothecary, have cost the sacrifice of the patient's life and of the doctor's reputation. Yet I have known of the apothecary being treated in the most indignant manner, after having privately and courteously informed the physician of his error, and prudently requesting the messenger to call again when the medicine should be ready.

In one such instance the prescription was brought back to the apothecary and torn up in his presence, whilst the customer was forbidden ever to go to the store again. On the other hand, an eminent practitioner, whose medicine would have proved fatal had his prescription been filled, called upon the apothecary and thanked him in the most cordial manner for having discovered and cautiously communicated to him the error he had made.

How mistakes on our part are to be prevented is an important question. In reply, I know of no better method than that of a late prominent member of the profession, who *invariably* laid his prescription aside a few moments, and then read it over carefully and critically. The frequent accidental substitution (as I am informed) of the word morphia for quinia, and the omission of camph. when prescribing paregoric, should awaken every physician to the value of the above precaution, which, I confess, I have had occasion myself to appreciate in several instances.

It has happened in some of the finest drug stores in this city, that in a multitude of prescriptions there has been a transposition of them, resulting in narrow escapes from misusing the medicines. In one case one drachm argent. nitrat. intended for solution and vaginal injection, was actually swallowed as a powder by the wrong patient; and in another case a patient just escaped taking a dose of liniment which should have been sent elsewhere. Facts like these might be multiplied, and call loudly for some certain means of preventing their recurrence. The only sure plan is for the physician *always* to put the name and residence of the patient, and his own name, on the prescription, with explicit directions for the use of the medicine; and there certainly can be no objection, especially when more than one medicine is prescribed, to adding, where appropriate, a label of "Cough Mixture," "Fever Mixture," "Liniment," "for external use," etc., to increase the protection against accidents; for liniments containing croton oil, aconite, etc., have been swallowed from omission of this simple precaution. The treatment of one such case of accident will cost us more toil and anxiety than a lifetime of precautionary methods.

Apothecaries often justly complain of the *illegible* writing and *severe* abbreviations of many physicians; the perplexity and danger in this view are too apparent not to command the serious consideration of even the most intelligent in our profession, and a reform in these respects is strongly hoped for.

In turn, some apothecaries may be censured for risk of errors on their part. The compounds of one kind of medicine are often placed in a row on the same shelf; for instance, Tart. Antimon.—Pulv. Antimon.—Hydrarg. Bichlor.—Hydrarg. Proto-Chlor.—Pulv. Ipecac.—Pulv. Ipecac. Comp.—Tinct. Opii—Tinct. Opii Camph., etc. In my own experience, a quarter of a century ago, I fortunately discovered that an apothecary had substituted tart. antimon. for pulv. antimon. in my prescription for a child. At another store, sixty grains of Dover's powder were put up instead of my prescription for one drachm of pulv. ipecac, as an emetic for an adult. The least pardonable of all was an instance in which an apothecary gave one ounce of arsenic for that quantity of pulverized gum arabic, intended for a demulcent solution. The patient, a married lady, had a narrow escape from death. Her husband was determined to prosecute the young man, but his tears and entreaties, with my intercession in his behalf, spared him that penalty.

What safeguard shall be thrown around all these dangers? It is only to keep *poisonous* medicines *apart* from simple ones, adopting as an *invariable* rule (practised by a leading pharmacist of this city), that in filling a prescription no bottle or drawer shall be replaced without a fresh inspection of the label on it. This is taking for granted that no medicine is ever kept except under its correct and proper label. The apothecary should be familiar with the doses of all medicines, to enable him to discover when a physician has probably directed a larger dose, or other medicine than he intended, and by informing him in a way that the messenger shall not know it.

Fortunately, by recent legislative enactment, medicines can be dispensed only by those who have passed a rigid and satisfactory examination in all the departments of pharmacy and chemistry, as a testimonial of their ability to fill their responsible positions; and physicians now have some protection in the apothecary's perfect qualification for the duty he undertakes. Nevertheless, it is advisable for him to select those of reputation in the various localities he may visit in, to whom his prescriptions shall be sent with entire confidence, instead of allowing a messenger to go to the nearest store as a matter of convenience, regardless of the freshness and quality of the medicines to be used.

The important occurrences here cited are of so remote a date that I believe nearly, if not quite, all of the parties alluded to are either no longer in the business, or are not living, so that no one at present engaged in it need make a personal application of them; whilst the authenticity of the facts furnishes an experience and suggestions which physicians and pharmacists may advantageously avail themselves of in the future.

"Medicus."

The Eucalyptus is becoming quite the fashionable tree in the South of Europe. There are fine specimens in the public promenades of Nice and Cannes, and in many of the towns of Spain. Garibaldi is urging that it should be planted around Rome in order to prevent malaria, and his desires are likely to be fulfilled. Its health-giving properties, which were in course of discussion only recently, now seem to be fully admitted.

HOSPITAL CONSTRUCTION IN THE ARMY.

To the Editor of The Medical Record.

Sir:—Since the date of the famous edict expunging calomel and tartarized antimony from the military materia medica, we have assumed Medean and Persian omniscience to be an *ex-officio* attribute of the Surgeon-General's bureau, and especially with regard to matters nosocomial have we supposed its decisions to be final; but the recently issued circular concerning the hygiene of the army suggests a distressing suspicion, either that the official mind may change, or that the official definition of words is subject to arbitrary and confusing reversal. In 1870 our previous convictions were confirmed by the authoritative announcement, in circular No. 4, that "the true principle of hospital construction" was that of isolated pavilions, which method, "known as the pavilion plan, ... is now recognized as the best suited to its purpose, the experience gained during the late war having contributed greatly to the recognition of its value in this country." But now, in 1875, the same writer tells us that "the 'pavilion plan,' which for a time was supposed to be a perfect panacea against all evil, has been found by sad experience to furnish no security against the evils summed up in the word hospitalism, and the results of practical trial in recent wars, both in this country and in Europe, have led to the recommendation of the so-called barrack-hospitals, that is, temporary wooden structures intended to last but ten or twelve years," in which "no ward or room for patients should have another room over it."

The apparent contradiction may perhaps be due to the writer's forgetfulness of the sense in which he used the term pavilion five years ago, or to his belief that that which we call a pavilion if called by any other name will smell sweeter; but that the meaning attached to this term during the interim has closely corresponded with the present signification of "barrack," may be judged from the reports of the Supervising Surgeon of the Marine Hospital Service, who in 1872 particularly advised building "all the hospitals of wood, and destroying them after ten or fifteen years," and who again, in 1873, urged that hospitals "should consist of pavilions, or separate detached buildings of wood, one story in height preferable, ... constructed with the view of destroying them as soon as the peculiar hospital diseases—erysipelas, pyæmia, gangrene, etc.—are engendered by the cumulated miasm of the patients, a condition usually obtains after the continued use of a ward for ten or fifteen years, the time depending mainly upon the amount of air-space to each patient, and the character of the ventilation."

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ANOTHER CASE OF REMARKABLE RECOVERY FROM GUNSHOT WOUND.

PASSAGE OF BALL PER RECTUM ON THE FIFTH DAY.

To the Editor of The Medical Record.

Dear Sir:—The case of "Pistol-shot Wound of the Abdomen," reported by Dr. Wm. O'Meagher in The Medical Record of July 17th, and the report of a case of "Gun-shot Wound of the Abdomen," by Dr. Josiah F. Day, in The Medical Record of August 14th, recall another very unique instance of injury to the chest and abdomen, terminating in recovery, which came to my notice during the late war. Notes of the case, taken by Dr. Jomain of the 29th New York Volunteers and myself, were sent to the Surgeon-General, and referred to in "Circular No. 6;" but that document had a very limited distribution, and so seldom have cases of the kind been recorded that it may be of interest to allude to it again. Captain Robert Smith, of the 29th New York Volunteers, was wounded at Chancellorsville, Va., on the 2d of May, 1863. The missile was a round musket-ball weighing about four hundred grains; it entered the eighth intercostal space of the left side at a point nine and a half inches to the left of the ensiform cartilage, fracturing the ninth rib, and without wounding the lung passed through the diaphragm and entered some portion of the alimentary canal. Captain Smith walked over a mile and a half to the rear, and on the 3d day of May presented himself at the field hospital for treatment, apparently not in the least fatigued by his journey. On examining the wound a hernial tumor of the lung was found protruding, of the size of a small orange.

A ligature placed around it on the field by surgeons who tried ineffectually to reduce the hernia was removed, and the sphacelated portion easily separated from the healthy granulating surface beneath.

The bowels having remained in a constipated condition after the injury, an ounce of oil was ordered on the 7th day of May, five days after receiving the wound, and while at stool, a few hours after, the ball was voided. It was somewhat battered from striking the rib, and quite irregular enough in shape to have made more serious trouble than resulted along its dangerous track. The patient daily walked about the ward smoking and chatting with his comrades, apparently enjoying the most comfortable physical condition. He never suffered from cough or dyspnœa, never had had anything like shock or constitutional disturbance whatever, and no sign or symptom of peritoneal inflammation from first to last. Cold-water dressings alone were applied to the hernia, and with no other special treatment it gradually diminished in volume until the 2d of June, when it was so much reduced in size that Captain Smith was transferred to Washington and given a furlough of sixty days. After his return he was again examined, and the wound found to be entirely healed, the respiratory sounds were normal, and there was still a slight hernia of the lung.

Mr. Stauch, artist of the Army Medical Museum, made a drawing of the parts.

In this case it is certainly very remarkable, taking into consideration the size and weight of the ball, that there should have been so little constitutional irritation, and such an entire absence of the symptoms of that inflammatory process which is absolutely necessary to recovery. In reference to the abdominal lesion, it seems to me probable that the small intestines escaped injury, and that the ball passed into the transverse or descending colon, which is much less likely to take on inflammatory action than the smaller bowel, thus happily avoiding that dire and intractable affection of the serous membrane. In this instance the ball undoubtedly passed immediately into the intestine, as it also must have done in the case reported by Dr. Day, for the slower process of ulceration would certainly result in very considerable inflammatory action, the symptoms of which would not escape observation. Why the contents of the bowel did not escape into the peritoneal cavity, and how so large a missile could find its way into the intestine without giving rise to the most violent inflammation, are questions about which we may conjecture or speculate, but cannot satisfactorily answer.

Wm. H. Hoag, M.D.,
Late Surgeon 134th New York Volunteers.

Manhasset, L. I.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from August 29th, 1875, to September 4th, 1875.

Webster, Warren, Surgeon.—Granted leave of absence for one month. S. O. 174, A. G. O., August 30, 1875.

Middleton, J. V. D., Assistant Surgeon.—Leave of absence further extended one month. S. O. 49, Headquarters of the Army, August 30, 1875.

Ainsworth, F. C., Assistant Surgeon.—Assigned to duty at Fort Vancouver, W. T. S. O. 115, Dep't of the Columbia, August 19, 1875.

NAVY.

Aug. 31.

Davis, William B., Passed Assistant Surgeon.—Ordered to the Receiving Ship *Sabine*, at Portsmouth, N. H.

Black, C. E., Assistant Surgeon.—Ordered to the New York Navy Yard.

Hudson, Adrian, Surgeon.—Ordered to the Washington Navy Yard.

Hiland, Thomas.—Detached from the Washington Navy Yard, and ordered to duty as a member and recorder of the Naval Examining Board at Washington, D.C., on the 15th inst.

Medical Items and News.

Portable Bathing Apparatus.—Prof. A. B. Crosby exhibited to the New York Medical Journal Association a portable bathing apparatus which facilitates the use of water in the treatment of fevers and other diseases.

It consisted of an india rubber sack of exceptional strength, of nearly the shape of an ordinary bath-tub, and fastened to a wooden rim, which had been made of the shape of a bathing tub by first steaming and then bending it. A wooden collar was attached to the rim at each extremity of the tub, which supports it when placed upon a couple of chairs for use. It is then secured to the chairs by means of cords, or if desired one end may be fastened to the top of the chair while the other rests upon the floor, and the sack can be made shallow by means of cords passing beneath it and then fastened to the rim. With this apparatus a full or half, or sitz or foot-bath can be given with the greatest ease, and can be done in the room of the patient, thereby avoiding any disturbance which might attend moving him from one room to another.

Dr. Crosby referred at some length to the labors of Dr. Nathan Smith and his own father, both of New England, in the treatment of the typhus of their day. Water entered largely into their method of treatment, and their success was a matter of common notoriety over that entire section of their country.

With regard to cold water for bathing purposes in the treatment of fevers, it is known to all that cold produces a shock, and in proportion to the shock given will be the height of the reaction. Therefore in order to obtain a continued benefit it will be necessary to repeat the application of the cold, perhaps very often, to keep down the reaction.

In all ordinary cases he is inclined to believe that as much benefit can be derived by using the spring-bath, with water at a temperature of 85° or 90°, as from the use of cold water. There is no shock produced by the warm water, and when its application is accompanied by a certain amount of friction and the surface is left somewhat moist, the heat of the body is diminished in the most agreeable manner possible. When the surface is left a trifle moist the heat of the body produces a rapid evaporation, and with this comes the production of cold. As a rule, therefore, in all advancing cases of elevation of the temperature of the body, he directs that his patients shall be sponged with warm water, always leaving the surface moist. As an illustration of this method of using water and the benefits which attend it, he cited the treatment of 120 cases of measles while in the army. His rule was to have the man sponged with warm water, night and morning, and not infrequently at noon while scaling, and not only, by unanimous consent, added very much to their comfort, but not a single case proved fatal.

British Medical Association.—The next meeting of the British Medical Association will be held at Brighton, under the presidency of Sir John Cordy Burrows.

The Chicago Medical Journal and Examiner is under the editorial management of Dr. William R. Byford, who has as his associates Drs. James H. Etheridge, Norman Bridge, James Nevins Hyde, and Ferd. C. Hotz. The journal, as now conducted, belongs to a stock corporation known as The Chicago Medical Press Association.

Inspector-General H. Franklin, C.B., who died at Folkestone, England, on the 2d of August, aged eighty-two years, was a surgeon in the British army at the battle of Plattsburg.

The Decoration of the Legion of Honor has been conferred upon Dr. Bormemaison, Physician-in-Chief of the Hôtel-Dieu of Toulouse; Helson Batut, Surgeon-in-Chief of the Hospitals of Toulouse, and Dr. Th. Desclaux, the Mayor of Tonniens, for their actions during the recent inundation.

Boston Medical Library.—The physicians of Boston held a meeting on the 20th of August for the purpose of organizing a medical library, to consist of medical and scientific books, journals, and phamphlets, for ready reference. Offers have been made of pamphlets and journals, and of one or two private libraries. More than one hundred members have already joined, and the rooms are to be opened in October.

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Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office*, 27 *Great Jones Street, one week previous, to insure their appearance.*]

Tuesday, Sept. 14th.—East River Med. Assoc.

Thursday, Sept. 16th.—N. Y. Acad. of Med., 12 W. 31st street.

Monday, Sept. 20th.—Sect. of Obstetrics, N.Y. Acad. of Med.—N. Y. Soc. of Neurology and Electrology.

Tuesday, Sept. 21st.—N. Y. Obstetrical Soc.—Med. Soc. of the Co. of Kings.

Wednesday, Sept. 22d.—N. Y. Pathological Soc.

Thursday, Sept. 23d.—N. Y. Medico-Legal Soc.

Original Communications.

CONSUMPTION: ITS HISTORY, PATHOLOGY, AND TREATMENT.

By EDWARD C. MANN, M.D.,

MEDICAL SUPERINTENDENT STATE EMIGRANT INSANE ASYLUM, WARD'S ISLAND, NEW YORK.

As we propose to treat of a branch of medical science which has always attracted the attention of physicians, from the difficulty experienced in determining its precise origin and nature, and which has given rise to widely diverse opinions, it may, perhaps, be interesting, and will certainly be necessary for a clear comprehension of it, to trace back both this disease, and the various opinions respecting it, to the earliest period from which we are enabled to learn anything of its history.

We find the first mention of consumption made in the works of Hippocrates, and when we reflect upon how little was known of medicine in the early ages, it is surprising to find to what correct general ideas Hippocrates arrived in his researches upon consumption.

Hippocrates classified consumption into five varieties: First, the disease that is now known as chronic pneumonia, which is an inflammation involving the walls of the air-vesicles, and the interlobular connective tissue; the second he considered to be owing to the dropping of mucus from the head down into the lungs. It is probable that he refers here to chronic catarrh. The third was caused by venous bleeding, by which term he probably referred to hemorrhage proceeding from a branch of the pulmonary artery, which conveys the venous blood from the heart to the lungs for purification. Fourth, by a collection of blood, pus, and mucus in the pleural cavity; while the fifth were abscesses or ulcerations in the lungs, by which he probably intended to designate what we now denominate tuberculosis of the lungs. These conclusions, at which Hippocrates arrived relative to consumption, governed the world for two thousand years, until the year of our Lord 1614, when Franciscus Deleboe Sylvius made important additions to this branch of medical science. He called the hard collections of matter found in the lungs of consumptives tubercles, and was the first to recognize the process of softening of the tubercle, thus forming cavities in the lungs and destroying them. He also wrote of a consumption of the blood. The views advanced by Hippocrates and Galen, and revised and corrected by Sylvius, underwent no particular advancement until the year 1689, when Morton, of London, published a work upon consumption that attracted great attention. He took a stand much in advance of anything before known upon the subject, and his views were acknowledged for more than a hundred years. He defined consumption as "a wasting away of the body," attended by fever, and dependent upon a diseased condition of the lungs which culminated in ulceration of them. His pathology was, that the acid and diseased serum of the blood exuded into the lung tissue, and acting as a foreign substance, irritated it and caused inflammation and ulceration. He recognized but one kind of consumption, and that was caused by the presence of tubercles. He also believed in an hereditary consumption, and an accidental or acquired one. About the year 1800, Auenbrugger made the discovery of determining the progress of consumption by percussion, a process by which we are enabled, by the relative high or low notes elicited by thumping upon the chest with the fingers, to determine with comparative accuracy the amount of disease which exists. The next discovery of note was made by Bayle, who described what is now called miliary tuberculosis. Bayle was followed by Laennec, whose name has become immortalized by his discovery of auscultation, a method by which, through the sense of hearing, we can determine the progress of certain diseases of the chest that can be ascertained in no other way. Laennec believed in but one kind of consumption, "tubercular consumption," and described with great accuracy the gray and yellow tubercle. This theory of "tubercular consumption," which was based upon the erroneous idea that consumption is always caused by the presence of tubercles, was combated successfully by Andral, who proved beyond doubt the existence of an acute phthisis or inflammatory consumption—"galloping consumption"—which resulted from degeneration of coagulated blood, retained in the air-vesicles from bronchial hemorrhage. In the year 1850 Reinhardt also succeeded in proving that Laennec was wrong, and went back to the old idea of Hippocrates, that tubercles were nothing but the result of inflammation, and established the theory that consumption in its different forms was but a chronic pneumonia with different physical signs. Although anatomy had disproved the old ideas and theories, nothing positive could be found to rely on as a foundation, until Virchow appeared, and by his "Cellular Pathology" laid the corner-stone of medicine as an exact science, and demonstrated the pathology of consumption beyond the line of dispute. The late Prof. Felix von Niemeyer adopted and made practical use of Virchow's discovery, and did more than any of his contemporaries to place upon a firm foundation the pathology of consumption. His researches, relative to chronic pneumonia, which according to our best writers comprises more than one-half of consumptive cases, has been of inestimable value to science, and we can only regret that this most eminent German pathologist and physician was not spared to us for a longer time.

Pathology of Consumption.—All organic life is composed of one or more cells, the lowest form of life being a single cell, while the highest form of life, or the human body, is composed of an infinite number. The lowest forms of cells are propagated by spores, which originate in the mother cell, and finally penetrate the cell wall and live an independent life; while the highest forms of cells are propagated by a budding out of the cell wall and gradual detachment of this newly formed cell. These highest forms of cells, which are those composing the human body, do not live an independent life as the lower ones do, but are dependent upon the integrity and proper nourishment of the rest of the cells of the body for life, being possessed of a much more delicate sensibility than the lower forms of cell life. As our bodies are composed of a network of millions of cells, it will be seen that, owing to this interdependence of cell life, and in order that the body may be in a state of health, all the cells which make up the various organs must perform their varied functions with unceasing regularity; that they must occupy their correct place, must be properly nourished, and finally, must be subjected to proper pressure. If these conditions are not fulfilled, the body at once gets out of order. If a blood-cell escapes from the blood-vessel, it acts as a foreign body, and a course of inflammation is set up to get rid of the intruder. If this condition happens in the lungs, as it often does, the blood-cells escaping into the meshes of the connective tissue become the nucleus for a tubercle, and then one of three things happens. It may undergo a fatty degeneration, it may undergo a calcareous degeneration and become encapsulated with a covering of lime, in which state it can do no more mischief, or it may decay, and pus cells be formed, which are taken up by the vessels and carried all over the body, infecting it, and causing the patient to die in a few months of an inflammatory or "galloping" consumption. By far the most frequent cause of tubercle is, however, the inflammatory products of pneumonia, which undergo a caseous or cheesy metamorphosis, and are deposited in the pulmonary tissues.

These caseous masses may either undergo one of the forms of fatty or calcareous degeneration before alluded to, or they may break down and allow cavities to form; the establishment of such cavities and consumption of the lungs being much more frequently a result of chronic inflammation than of tubercular deposit. The blood-cells, or corpuscles exist, as it is well known, in the proportion of one white to about three hundred red corpuscles. If the white corpuscles increase in number unduly, as they may, from want of fresh air, sunlight, or exercise, they become very dangerous, as they move much more slowly than the red ones, and obstruct the vessels, and when the capillaries are thus obstructed the pressure may become great enough to rupture them, and permit the escape of a few blood globules into the tissues. If this happens in the lungs, as it sometimes does, it may be productive of consumption, as we have seen by the formation of tubercles. The calcification of the tubercle, a process which nature adopts in a spontaneous cure of phthisis, is what the physician should aim at in the cure of tubercles, it being merely an effort to second nature in her work, and if the disease has not progressed so far as to form large cavities in the lung, we may hope confidently for a radical cure. According to Dr. Green, of London, who has paid great attention to the microscopical examination of diseased lung tissue, "the structural changes met with in the lungs in phthisis are mainly of three kinds. 1st, an accumulation of large epithelial-like cells within the pulmonary alveoli; 2d, a thickening of the alveolar walls by a small-celled lymphoid tissue, together with, in most cases, the growth of a similar tissue around the minute bronchioles; and 3d, an increase in the interlobular connective tissue." "These changes are analogous to those which occur in the several forms of pulmonary inflammation, especially in catarrhal and interstitial pneumonia. The accumulation of epithelial-like cells within the alveoli in catarrhal pneumonia, with, in the more chronic cases, the ultimate thickening of the alveolar walls, and the increase in the interlobular connective tissue which characterizes the interstitial process, closely resembles the phthisical lesion." These anatomical or structural changes are due, according to Dr. Green, to differences in the intensity, in the duration, and in the mode of origin of the inflammatory process. Thus "in those cases in which the inflammatory processes are of slight intensity and long duration, the most marked structural change will consist in the development of a small-celled growth in the alveolar walls and in the interlobular tissue, a growth which tends to become developed into a fibroid structure; whereas in those cases in which the inflammation is of greater intensity, a proliferation of the large nucleated elements contained within the alveoli will constitute the more prominent part of the process." The former condition results in induration of the lung, and the latter in softening and caseation, the large epithelial-like cells being incapable of further development, tending to undergo retrogressive changes. According to Dr. Green there are three different agencies concerned in the production of pulmonary phthisis. These are direct irritation, infection, and predisposition. The direct irritation he attributes to the successive attacks of catarrh of the bronchial mucous membrane, extending into the pulmonary alveoli, and causing inflammatory changes in them, giving rise to catarrhal pneumonia. The infection he describes as being identical with that causing general tuberculosis, the dissemination of the infective substance being effected by the blood and lymph streams or serous canals. The predisposition, he says, "appears to consist mainly in an abnormal susceptibility of the broncho-pulmonary tissues to the various kinds of injurious irritation." Dr. Green also holds that there are no pathological grounds for any subdivision of pulmonary phthisis into different varieties; "the variations in the anatomical characters of the lungs depending principally upon variations in the intensity and duration of the inflammatory processes which give rise to the pulmonary consolidation, and also upon the parts which primary irritation and infection play respectively in the causation of the disease."

There are two diametrically opposite forces which also operate in the production of consumption. The first consists in an overfilling or engorgement of the vessels of the lungs by blood, brought on by over-exertion, thereby causing some little capillary vessel or vessels to rupture, allowing the escape of perhaps not more than a teaspoonful of blood into the pulmonary tissue, which perhaps gives rise at the time to nothing more than a slight feeling of soreness in the chest, but which is the starting-point for a chronic pneumonia that generally proves incurable. The other and opposite condition consists in too little blood being sent to the lungs, as a result of want of proper exercise and close confinement, the upper part of the lungs being allowed gradually to collapse, and tubercles appearing as the circulation ceases to affect them. The peculiar anatomical formation of the lungs favors the formation of tubercles in the upper part of them, since, while to breathe with the lower lobes requires no exertion, a very full and deep inspiration is required to fill the lungs with air to their extreme points. Hence it is that tubercles appear at the apices of the lungs and spread downward, instead of from below upward.

There is another form of consumption known as acute miliary tuberculosis, which is the most fatal of all the varieties of consumption, and consists in the appearance of tubercles in the lungs and other organs of the body, being due in most cases, and it is claimed by some writers invariably, to the poisoning of the blood by the caseous products of pneumonia, or by pus-cells being introduced into the circulation, although it is claimed by Niemeyer that it sometimes appears as a primary disease, being unpreceded by caseous deposit. This disease runs an acute course, generally being developed at an advanced stage of consumption, the patient succumbing to it in a short time.

It has been noticed that in a great many cases there exists a very close relation between tuberculosis and insanity. Esquirol was the first to note this fact, and it has since been commented upon by Schroeder van der Kolk and Dr. Clouston. In some cases phthisis has preceded insanity, and in other cases, and probably in the majority of those in which a close relation seems to exist, the development of the two diseases has been nearly contemporaneous. It has been noticed that the forms of insanity complicated with phthisis exhibit a decided tendency to pass into dementia. Dr. Clouston, in the "Journal of Mental Science," for April, 1863, gives a table showing the form of insanity in 282 patients who died with tubercular disease at the Royal Edinburgh Asylum. Acute mania 12, mania 15, monomania, 39, melancholia, 18, dementia, 153, general paralysis, 34. It will be noticed by the foregoing table that more than one-half of these cases passed into dementia, while on comparison of the tubercular with non-tubercular cases, it is shown that only one quarter of the latter class of cases were demented at death. It was noticed in all these cases that the acute stage of the insanity was of very short duration, and that the patients all manifested a decided tendency to pass rapidly into subacute mania and dementia. It has also been noticed that the prognosis as regards recovery of mental health is very unfavorable, and that apparent recoveries generally prove to be only remissions.

Etiology.—The first and most important cause of consumption is hereditary influence, which if not directly transmitting the disease to the child, yet beyond a doubt predisposes it to the acquisition of phthisis upon exposure to exciting causes. There is no doubt, however, that by proper hygienic influences we may succeed in warding off consumption from children who are hereditarily predisposed to it. Among the most potent of these means we may mention plenty of fresh air, sunlight, and muscular development. Another fruitful cause of consumption is the drunkenness of parents, which by entailing an impaired vitality, and also by depriving the children of such parents of proper food and clothing, directly predisposes them to affections of the lungs.

A sedentary life, in which it is not so much the overwork as the total want of muscular development, also often induces consumption in an otherwise healthy person. Examples of this may be found in all of the liberal professions which stimulate their followers to excessive mental labor, to the exclusion of muscular development, the want of which is almost universally noticed. Overwork in trades, by close confinement and the constant inhalation of irritating vapors and dust, and impure air from want of proper ventilation, often develops hereditary taints, that have been very likely unsuspected or forgotten. Certain trades are also much more likely than others to induce consumption, among which may be mentioned shoemaking, factory life, stone-cutting, and grinding of metals. In all of these trades the workmen are obliged to inhale continually various kinds of dust which irritate the lungs and cause obstruction and inflammation. In sewing-girls who are obliged to work hard and for many hours, with insufficient food, many cases are developed. Many physicians hold the opinion that marriage with a consumptive person induces consumption in an otherwise healthy person; and Dr. Henry J. Bowditch, of Boston, a noted authority on consumption, gives it as his opinion "that in some instances consumption may be promoted, if not caused by marriage, if imprudently contracted, and subsequently unwisely or incautiously consummated." It is a question of great importance whether or not consumption is caused by contagion or infection. Dr. Budd, of Bristol, England, claims that the dried sputa have spores in them of the "contagium" of phthisis, and thinks that they must be floating about in the atmosphere in which the consumptive is living, and attributes to this cause many cases of supposed hereditary transmission.

From the results of numerous experiments that have been made, there can no longer be any doubt that both the flesh and milk of diseased cows, if not submitted to a heat equal to that of boiling water, possess the power of infecting both children and adults. Gerlach, Bollinger, Zürn, Leisering, Gunther, Klebs, Pétroff, and other experimenters, have all induced artificial tuberculosis by feeding tuberculous flesh and lungs, caseous lymphatic glands, etc., taken both from the human subject and from cattle and pigs affected with the disease. Nearly all the lower animals—cattle included—have been thus experimented upon, and it has been conclusively proved that they are all liable to acquire phthisis by the ingestion of diseased phthisical food. Bollinger, Gerlach, and Klebs have also produced tuberculosis by giving animals milk from diseased cows, and it was found that the use of such milk *invariably* produced tuberculosis, which commenced as an intestinal catarrh, and then gave rise to mesenteric glandular tubercles. Afterward the liver and spleen became affected, and later the thoracic organs. Klebs insists upon the fact that the disease may be developed in children, in whom is no hereditary taint, through the medium of the milk of the nurse, or cows' milk, if taken from diseased animals. The majority of observers who have made a study of tubercle agree as to the histological identity of human tubercle with that occurring in the lower animals. Prof. Schüppel,[*] who has made a study of tubercle in general, and that of the bovine species in particular, has unquestionably established the absolute identity, in structure and development, of tubercle as appearing in the bovine species with tubercle in man.

The opinion is held by many physicians that by continual exposure, and particularly by living constantly in the same room, and sleeping with consumptive patients, the disease is communicated very frequently. A case came under my own notice, but a short time since, of a young lady, Miss F——, of Massachusetts, of fine physical development and perfect health, in whose family there was no taint whatever of consumption on either side, who contracted the disease by occupying the same sitting-room with a person who was dying with consumption, and who was expectorating constantly. There was no apparent cause, such as a sudden cold, that could be traced back; but she drooped, contracted a cough, and in less than a year had fallen a victim to this insidious disease. This is, we think, a case which goes far to prove the theory of contagion, and is by no means an unusual one, as many physicians can testify from their own experience. Quite a noted physician writes that he is thoroughly convinced that phthisis is frequently caused by contagion, and deserves to be placed in the same category with typhoid fever in this respect.

Consumption is often caused by a wet location, and particular care should be taken in selecting a residence to build on a dry, gravelly soil, in a situation not exposed to east winds and fogs. Plenty of fresh ai, and sunshine are very essential to the mental an physical health of the inmates of any dwelling, and the sun should by all means be allowed to enter the house, and not be prevented by shade trees overhanging it, as is often the case.

Treatment.—The treatment of consumption by the ancients was as varied as we have seen their theories to have been, changing with each change of theory. The treatment of Hippocrates, Galen, and the oldest physicians, was to endeavor to dry up the ulcerations of the lungs by means of inhalations of tar, myrrh, etc., allay the cough by narcotics, and also to send their patients to dry places for change of climate. The remedies employed by the older physicians were almost exclusively of a vegetable character, although occasionally they employed preparations of antimony, lead, and arsenic. Issues, setons, and artificial ulcers were also used to relieve the lungs. It was thought by some that the operation of an emetic was calculated to relieve the lungs of the specific principle that was supposed to exist, and accordingly the "Emetic cure" gained quite a reputation for a time. Prussic acid, sulphur, and sulphur baths, creasote, muriate of ammonia, etc., were all highly lauded, and in their turn have been discarded for other remedies. It was thought upon the discovery of iodine that it would prove a specific; but though accomplishing much good it was laid aside, as it did not fulfil the great expectations regarding it. Laennec held that consumption was incurable, but he was opposed by Broussais, who claimed that he could by bleeding extract the diseased blood, and then create new blood, and save his patients. But his failure only served to strengthen the idea advanced by Laennec of the absolute incurability of this disease.

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[*] Ueber die Identität der Tuberculose mit der Perlsucht.—Virchow's Archiv, Bd. 56, s. 38, 1872.

As this idea gained prevalence, the habit was established of endeavoring to alleviate as far as possible the sufferings of the unhappy patients, by sending them to more favorable localities, where by change of air, diet, and scenery the disease would often become temporarily checked. Cod-liver oil obtained a wide reputation on account of the fact that iodine had been discovered in it. It was first used in Germany, then introduced by Bennett into England, and to this day is almost invariably prescribed by physicians when called upon to treat consumption, whatever may be the state of the patient for whom it is ordered. Its success was owing to the fact that the poorer classes in Europe, for whom it was prescribed in the dispensaries, had no means of procuring the flesh or fat of animals, owing to their extreme poverty, and the result attendant upon their immediate improvement upon the use of cod-liver oil gave the idea to many that it possessed most wonderful curative properties, and led them to prescribe it for all classes alike, when oftentimes nourishing diet of a different description would have been much more suitable. Fusel oil and alcohol have also been extensively used in phthisis, the former being productive of a great deal of harm in ruining the digestion of many of its victims, while the latter is, in our opinion, suited but to a very small minority of the sufferers from this disease. Those who have delicate skins and perspire freely, and with whom fatty articles do not agree, are oftentimes very much relieved by the use of alcohol; while for most other cases it is utterly inappropriate and generally hurtful.

Dr. Anstie, of London, a celebrated authority upon this question, gives the following as his opinion: "We are justified in believing that when alcohol reduces temperature and the dicrotions of the pulse, and fails to pass away in notable quantities by the kidneys, it always does good, but that the slightest degree of narcotic action of alcohol is harmful." Out of 210 answers received to the question, whether consumption was prevented by the free use of spiritous liquors, 113, or 53.8 per cent. answered in the negative, while 3 per cent. answered that its progress might be retarded. It will be seen, therefore, that a large majority of our best educated physicians unite in the condemnation of the treatment of consumption by a free use of alcohol.

The treatment of the ancients by inhalation was revived by Sales-Girons at the baths of Pierrefonds, a watering-place near Compiègne. Sales-Girons read a paper before the Hydrological Academy of Paris, on December 8th, 1856. In this paper he described his establishment, and contended that the spray inhaled penetrated deeply into the respiratory tract. Sales-Girons received from the Academy a silver medal in recognition of his valuable services in adding to our therapeutical resources. When we recollect that the mucous membrane of the respiratory organs possesses a much greater capacity for absorption than that of the stomach, being much more delicate, and that in many cases it is very desirable that the medicines should not be subjected to the chemical action of the gastric juice, we see that in many cases inhalation is to be preferred to internal treatment. The medicines inhaled come into close contact with the blood in its most vital state, and are consequently more thoroughly absorbed into the circulation than when they are obliged to make the circuit of the blood before reaching the lungs.

The proper treatment of consumption is a very difficult task, as it requires great tact and constant attention to the wants of a patient to keep him in good physical condition. We would insist primarily upon the removal of all mental causes calculated to make the patient despondent and unhappy, as without this all attempts at medication will be in vain. The next most important thing is to place the patient where he can have plenty of fresh air, sunlight, and as much muscular exercise as he can bear without fatiguing him too much. If we can by such means induce a good appetite and digestion, the patient is sure to improve, if not to recover. The diet must be carefully attended to, and nothing calculated to injure the digestion be allowed under any circumstances. Milk, which is one of the articles of food that makes good blood, may and should be freely used, and also bread, which should always be cold. Wheat, beans, and fish, which contain phosphorus and build up the nervous system, should also be used, while the growth of the body requires the albuminous, carbonaceous, and fibrinous compounds that are obtained by a diet of meat, eggs, milk, and vegetables; ripe fruits are also very wholesome. Pastry, hot tea and coffee, and excess of drink with meals are to be avoided in all instances. When there is a constipated condition of the bowels, we should endeavor to regulate them by diet rather than by medication, if possible, and the use of cathartics should be forbidden. To this end the food should be thoroughly masticated before being swallowed, and ripe fruits and berries may be used, with coarse brown bread, or Graham bread, or cracked wheat eaten with syrup.

The patient should pay great attention to the skin, and salt baths (a solution of rock salt) with subsequent friction night and morning with coarse Turkish towels will have a very decided effect for good if regularly used and persisted in. The baths should be sponge-baths, as many persons with phthisis are unable to stand the shock incident upon getting into a bathtub of cold water, as there is not sufficient reaction, owing to a lowered vitality in such patients. Children predisposed to consumption should wear flannel next to the skin constantly, summer and winter, the weight and thickness of it being adapted to the seasons. A radical change of climate may oftentimes be experienced by moving, or going for a time, for a short distance only, by which change a high and dry location may be substituted for a low, wet, and marshy one, and whenever this is practicable it should be accomplished, as a change of residence for a few months at the outset of this disease will often check it and prevent the formation of tuberculous cavities in the lungs, which must necessarily, if progressing to any extent, destroy the life of the patient. The medical profession since Laennec have come to believe that consumption is absolutely incurable; but here and there we find one who believes in the spontaneous cure of phthisis. Prof. Bennett, of Edinburgh, gives it as his opinion "that of no disease was evidence of a spontaneous cure more frequent than of pulmonary phthisis." As Bennett shows very clearly that tubercles heal by "calcareous degeneration," the best method of treatment seems to be to imitate as nearly as possible the process which nature adopts in a spontaneous cure of phthisis, and endeavor to promote the calcification of tubercles by introducing into the blood the salts of lime, and then get a deposit of lime around the tubercle. In order to do this we perfect the process of respiration by strengthening the muscles of the chest, which can be accomplished by gentle muscular exercises and forced inspiration and expiration, taking as long as possible for inspiration, and then expiring slowly and steadily, and in this way repeating this exercise daily in the open air we shall find great improvement in the respiratory powers of the patient. If no large cavities exist, we can by such means as the above, if we can place the patient under proper hygienic influences, almost invariably arrest the progress of consumption. The more that can be accomplished by introducing such medicines as iron, etc., with the food, the better, as we run much less risk of disturbing the patient's digestion. Another very important object is to secure a good sleep to the patient, who is generally restless and uneasy at night, and to this end the muscular exercise that has been spoken of, together with the cold salt baths, with friction over the whole surface of the body before retiring, as well as upon rising in the morning, will generally tire the patient sufficiently to secure him a good sound night's rest. Tonics, such as iron and quinine, are often required, and in cases in which their use is indicated rapid improvement is generally found to follow their employment. Cod-liver oil is particularly indicated in patients of a strumous diathesis, and may be given in connection with iodine and iron. The objectionable taste of the oil may be overcome by the use of the following formula, which has the advantage of combining phosphorus and cod-liver oil in a pleasant emulsion. The use of the phosphoric acid will often overcome the nervous exhaustion and depression under which the patient is laboring, and at the same time assist the appetite and digestion. The writer is in the habit of prescribing it, and invariably with the happiest results, patients taking it readily who could not bear the plain cod-liver oil at all.

℞. Yolk of three eggs.	
Oleum morrhuæ	℥ viij.
Sherry wine	℥ iv.
Acidi phosphorici Syrupi simplicis	āā ℥ i.
Aquæ amygdalæ amaræ	℥ viij.
Spiriti vini rect	ʒ i.
M.	

Rub the eggs up in a mortar, adding the oil spoonful by spoonful. Last of all add the phosphoric acid.

Inhalation of compressed air, oxygen gas, and the vapor of iodine may all be used with advantage in certain cases. The inhalations of compressed air are more particularly useful in the first stages of phthisis, their action being to supply the blood with oxygen, and also to stimulate the appetite and increase the powers of digestion. By the application of compressed air, there is a considerable increase of the negative pressure of inspiration, and of the positive pressure of expiration, which results in an increase in power of the muscles of inspiration, and also in a reduction of the circulation and of the animal heat. Inhalation of oxygen gas may be used with advantage in phthisis in assisting the lungs in the decarbonization of the blood in a manner that does not force the lungs to perform such an exhausting number of respirations as would otherwise be necessary in order to supply the body with the requisite amount of oxygen. Its use is contra-indicated in all inflammatory states of the lungs and respiratory organs.

Inhalations of the vapor of iodine are of the greatest efficacy in the treatment of phthisis, producing in nearly every case decided amelioration of the symptoms of the disease, while in many cases tubercles have disappeared and tuberculous cavities healed under this treatment. These inhalations have been tried and their value attested by many well-known authorities, among whom may be mentioned Laennec, Lugol, Baudelocque, Sir James Murray, Sir Charles Scudamore, and many others. M. Piorry, of France, says: "In many cases these inhalations have been followed by a diminution in extent of the indurated parts surrounding tuberculous deposits, and the amelioration of the general symptoms," and he reports several cases which were apparently cured by these inhalations. The method which the writer employs and prefers is, to attach to a steam atomizer a rubber tubing, which is attached to the little tube on the boiler from which the steam issues, and at the other extremity of the tubing is attached a hard-rubber face-shield, in which is a chamber for holding a sponge, which is saturated to the desired extent with the tincture of iodine. The steam is then passed through the tubing by the operation of the atomizer, and the patient inhales the vapor from the face-shield.

If this vapor should at any time prove to be irritating to the respiratory tract, a few drops of the tincture of conium may be added to the iodine at the time of inhalation. Soothing inhalations, by which means the medicines inhaled are nebulized, or converted into a fine spray, are of great service in checking the troublesome cough which harasses the patient night and day, by allaying the irritation which excites cough. Among the most useful of these medicines for inhalation may be mentioned muriate of ammonia, chloride of sodium, tinct. conium, glycerole of tannin, tinct. of opium, and tar water. The use of the sesquichloride of iron in inhalations, in the form of spray, has been highly praised by Biegle, the strength employed being from five to twenty-five minums to the ounce of water.

The inhalation of the vapor of creasote has sometimes been of service in checking secretion, allaying irritation, and arresting expectoration. It is impossible, however, to lay down a definite plan of treatment suited to all cases alike, as no two cases will be found to present the same indications, and each individual case demands the utmost care and attention to age, sex, and idiosyncrasies that the practitioner can bring to bear upon it, if he hopes to effect a cure. In diagnosing a case of phthisis, the sputa should invariably be subjected to a careful microscopic examination, as the presence of elastic fibres in the expectoration, which come from the walls of the air-vesicles, are pathognomonic of phthisis, and we are then enabled to decide oftentimes as to the existence of disease where the physical signs may be so slight as to lead us to doubt the existence of consumption. Microscopic examination of the sputa also reveals to us, in phthisis, pus corpuscles and tubercle corpuscles. In searching for elastic fibres, any little grayish masses in the sputa should be picked carefully to pieces with needles and particularly examined.

Finally, as it will be found much easier to prevent the acquisition of consumption by prophylactic measures than to arrest it after its development, everything calculated to cause an afflux of blood to the lungs or to the respiratory tract should be avoided, and persons in whom a tendency to consumption is suspected should not be allowed to inhale an atmosphere impregnated with smoke or dust, or which is either very hot or very cold, and they should also avoid great exertion, such as immoderate running, dancing, or singing, and also the dampening of the feet at nightfall. If possible, the northern winters should be avoided, and the patient sent where he can spend his time in the open air, without the risk of taking cold, which is the principal good resulting from a change of climate. It is encouraging to find that during the past twelve or fifteen years the mortality from consumption has been steadily decreasing, owing to the improved views that have been formed regarding its treatment, and this fact gives ground to hope for a still greater diminution in the mortality for the future.

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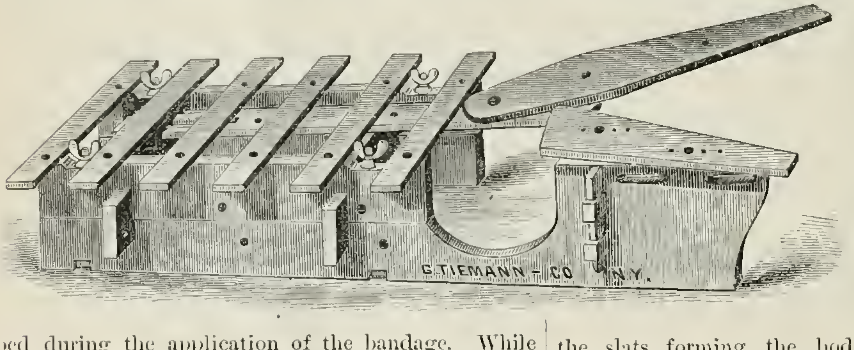
AN APPARATUS FOR SUPPORTING THE PATIENT WHILE APPLYING PLASTER-OF-PARIS IN THE TREATMENT OF FRACTURED FEMUR.

By P. A. HARRIS, M.D.,

DOVER, NEW JERSEY.

Prior to the month of June, 1873, I treated fracture of the femur by the very fashionable plaster-of-Paris bandage. Although I had had considerable experience in the use of this desirable dressing, yet I always found it a difficult task to apply a good permanent dressing to a fracture above the knee, according to the most approved methods of operating. My experience began with the use of the perineal iron stanchion, bent over at the top with a hook, from which a strap or wire passed around the loins, and served to support the patient several inches above the bed during the application of the bandage. While this method was better than any other I knew of at that time, yet it failed, in my judgment, to accomplish all that was necessary in a successful application of the bandage. I was so confirmed in the belief there was still room for improvement, that I resolved never again to attempt the treatment of fracture of the femur by the plaster bandage without a different, if not a better, method of supporting my patient.



I immediately devised and had constructed the apparatus I am about to describe, which I used for the first time in October following, for supporting a man while a plaster-of-Paris bandage was applied to the right thigh, leg, and loin. This man was recovering from a compound comminuted fracture of the neck, trochanters, and upper one-fourth of the femur, on whom I had performed the operation of excision of the head, neck, and fragments of bone seven weeks previous.

It served a good purpose, supporting the patient in a horizontal position, except the injured leg, which must always be held by an assistant during the application of the bandage, leaving nothing in the way of the operator.

The accompanying illustration represents the apparatus. It is over five feet long, two feet wide, and ten inches high. It consists of a long and short side, each being made up of two boards of equal width, placed one on the other edgewise, and held together by two bolts provided with thumb screws, which also serve to fasten the tenons of the two cross blocks, thus connecting the sides together; of six slats forming the body-rest, placed across and secured at either end by a screw; of a third cross-block, very short, which serves to support the rest on which the sound leg is placed. This short cross-block has two tenons, which pass through mortises in the long side, and are held in place by a wooden pin.

The sound leg-rest is secured to the long side by a screw, and to the short cross-block in like manner. It is provided with a series of holes to adapt it to the length of the patient. The half circle-like opening in the long side, between the sound leg-rest and the body-rest, corresponds to that portion of the body around which the dressing must be carried to form the girdle. This opening is ten inches long, its maximum depth being six and one-half inches.

A very short perineal band* attached to two broad straps of thin leather will furnish counter-extension. Secure one end to a slat near the head of the apparatus, let it pass down over the slats forming the body-rest, between the thighs, up over the body and shoulders, and fastened again to one of the slats near the head. A part of the apparatus which remains to be described is the folding-rest for supporting the injured leg until ready for operation. It consists of two boards, one much thinner than the other, held together by a screw which allows the part forming the leg-rest to be abducted to any extent from the sound limb. When removed from its place, as it will be while the plaster-dressing is being applied, it can be folded together—hence named folding-rest. At the end of the under thicker portion of the folding-rest is a tenon which is made to pass between the slats forming the body-rest, and the upper edge of the first cross-block; it is provided with a spring which prevents it from being pushed out of the mortise. The folding-rest is valuable, particularly as a support for the injured limb during the administration of an anæsthetic. If the limb be firmly bandaged to it, it will prevent, to a large extent, the injury so often done to the soft parts by the violent, uncontrollable, muscular efforts so common in the beginning of anæsthesia.

The apparatus is so constructed that it can be quickly set for either leg, or changed from one to the other.

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* Not shown in cut.

To change it from left to right, or *vice versa*, unscrew the four thumb-screws, remove the bolts, and change the under half of side supports each for the other. Insert the four bolts, and tighten the thumb-screws. Then remove the two screws which secure the sound-leg-rest, and withdraw the pin from the tenons at the end of short cross-block. Remove short cross-block, insert from the opposite side, and secure it with pin. Turn the sound leg-rest the other side up, and fasten by the two screws as before. When this is done, the folding-rest can be introduced as before; in fact, every part of the apparatus remains the same, except it has been changed from left to right, or *vice versa*. To render it more portable, I have constructed it so that by removing the four bolts it can be folded together and made to occupy about one-third the space.

Three minutes will suffice to set up the apparatus, or change it from side to side.

Directions.—Before placing the patient on the apparatus, let the body-rest be covered with several folds of a blanket or coverlet, and provided with a pillow. The leg-rest should also be padded by doubling a small blanket over it. Let one end of the strap attached to the perineal band be buckled on the first slat at the head of the body-rest, and carried down over the centre of the rest. Place the patient on the apparatus so that part of the body and pelvis, around which the bandage must be carried, will correspond to the vacant space between the leg and body-rest. Continue the counter-extending band over the perineum and abdomen, and secure its strap to the slat at the head of the apparatus. Secure the sound leg to its rest by a few turns of a roller passed round the leg, under the rest, and through the slats near the upper edge of the long side. The patient's body and sound leg are now supported on a common plane several inches above the bed or table on which the apparatus rests. Every part to which the dressing should be applied is accessible to the hand of the operator. The sound leg-rest may be abducted to any distance compatible with a successful appliance of the bandage. The injured leg, of course, must be supported by an assistant, aided perhaps by the compound pulleys so often required for extension. Abduction to much extent causes the girdle to fit poorly. When the dressing is hard enough to warrant us in discontinuing the extension, the straps attached to the perineal band may be drawn out from under the girdle, the bandage removed from the sound leg, and the patient transferred to the bed.

I cannot here consider the comparative merits of plaster-of-Paris, or the so-called "permanent dressings," and the "movable apparatus." We may hope, however, that with the approved methods of operating we will discover peculiar merits in permanent dressings, and thus make them as applicable to the treatment of fracture of the femur as they have proved in fractures of the leg or arm. In either case a certain amount of experience is necessary in order to make a decent bandage, and if there is a general applicability about "permanent dressings" which we find in no one movable apparatus, why should we not make the most of them, and determine if they still have not claims of superiority over other methods in the treatment of fracture of the femur.

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M. Urirtz has been nominated Professor of Organic Chemistry in the Academy of Sciences of Paris.

A CASE OF TRAUMATIC VENTRAL HERNIA.

By R. GEORGE GLASS, M.D.,

HOUSE-SURGEON, BELLEVUE HOSPITAL.

E. S., fifty-eight years of age, was admitted into Bellevue Hospital, May 25th, 1875, and gave the following history:—

He was working in a factory, filing metallic plates, and found it very convenient when at work to rest the material to be worked on the bench, and hold it firmly by pressing against it with his abdomen. This practice (he being a new hand and working hard) made him very tender and sore in the abdominal region. In the month of October, 1874—shortly after beginning this work—he found a circumscribed point of tenderness in the abdomen, midway between the umbilicus and pubes, and in the median line. The following day it became worse, and in a few days ended in an abscess, which was opened by a physician. With the pus which followed came a few inches of intestine. At the end of six weeks he had recovered, and resumed work at his trade.

On the morning of the day of admission he was working on a machine run by hand. Projecting from the front of this machine, about three feet from the floor, was a dull piece of iron, in the form of a spike. Against this the patient, while suddenly leaning over, struck his abdomen, causing a rupture of the walls, and a protrusion of intestines.

On admission, patient suffered considerably from shock and felt very weak. Before being admitted to this hospital, several attempts had been made at reduction of the hernia, without success—once under the influence of an anæsthetic. He had also taken a hot bath. Examination of abdominal walls showed a loop of intestines, thirty-five or forty inches long, protruding from an opening about an inch and a half in length. This opening has taken place in the cicatricial tissue, in the site of an old abscess, which extends from the umbilicus downwards, in the median line, to the pubes. The wound is situated lying in a vertical direction, and occupying a position half-way between these two points. The intestine is deeply congested; and at one point, near the extremity of the loop, there is a dark discoloration, which looks very much like gangrene. Bloody serum exudes from the surface of the intestine.

The patient was anæsthetized, and, after the gut was washed, an attempt was made to reduce, which was ineffectual, owing to the swollen condition of the intestines and the cicatricial rigidity at the opening. The upper part of the wound was made larger by the introduction of a hernia knife—care being taken to thrust the finger in between the peritoneum and abdominal wall, so as to avoid injury to the former—making an incision about an inch long; and, after stretching the wound with the fingers, the hernia was reduced. The wound was then closed by silver wire sutures and the patient kept moderately under the influence of opium for four or five days. He was then discharged cured in eighteen days, with orders to wear an abdominal support.

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M. Ranvier has been appointed to fill the new Chair of General Anatomy, which has been established in the College of France, at Paris.

Dr. Liebreich, of Berlin, has received a diploma of honor from the Vienna Exhibition for his discoveries of the properties of chloral.

Progress of Medical Science.

Tabetic Affections of the Joints.—M. Charcot recently presented specimens before the Society of Biology, illustrative of a peculiar disease of the joints, which he denominates tabearthropathy. The disease in the hip is characterized by diminution in volume and atrophy of the head of the femur, and an appearance as though the bone had been worn away. Apparently such changes had taken place in the bone-structure that it became incapable of supporting the physiological pressure. Spontaneous luxation of the joint had taken place in consequence of these changes. The speaker believed that as much as half of the so-called spontaneous luxations were due to similar alterations in the structure of the joint. Opposite the head of the atrophied femur "osseous stalactites" had formed on the iliac bone, indicating an inflammatory process "analogous to that observed in dry arthritis." Similar lesions were found in the shoulder-joint. In one specimen the alteration was seen to consist entirely in a wearing away of the head of the humerus; there was no trace of any inflammatory action. According to Charcot, the pathology of the affection was obscure, but there could be no doubt of its dependence upon lesions of the central nervous system. He claims to have met with more than fifty cases of the disease, and believes that it is not uncommon.—*Gazette Médicale de Paris*, Aug. 7, 1875.

Insufflation in Intestinal Obstruction.—Dr. Brun, in a communication to the *Journal de Médecine* of last month, describes a case of intestinal obstruction, due to the ingestion of large quantities of service fruit, which was successfully relieved by means of J. Wood's method of insufflation of air. The difficulty had lasted for four days, and had resisted all the ordinary methods of treatment. Moreover, the procedure recommended by Taliaferra of injecting into the bowels bicarbonate of soda and citric acid separately, for the purpose of liberating gas in the intestines and distending the canal, had been tried ineffectually. The patient was evidently sinking; the pulse was very feeble, and there was stercoraceous vomiting. An œsophageal sound was introduced into the rectum, and to the external extremity the nozzle of an ordinary bellows was attached. Air was then injected till the abdomen had increased markedly in volume. The first attempt, however, was unsuccessful. It was repeated, and the insufflation continued until considerable abdominal tension was produced, and respiration was rendered difficult. In the course of an hour dejections began and the patient recovered.

Influence of Compressed Air upon Fermentations.—M. P. Bert has ascertained that compressed air has the property of delaying or arresting (depending upon the degree of pressure) putrefaction, and the oxidations which accompany it. Thus, a bit of muscle, subjected during five days to a tension of oxygen corresponding to twenty-three atmospheres of air, did not present any odor, and had only consumed 380 cubic centimetres of oxygen. A piece of the same weight, exposed to similar conditions, excepting that the pressure remained normal, consumed 1,185 cubic centimetres, and emitted a very foul odor. On increasing the pressure, the oxidations were completely arrested. The meat thus exposed to compressed air preserved its general appearance, its firmness, and histological structure; the color was slightly changed. The flavor of mutton cutlets, preserved for one month in oxygen, compressed to a degree corresponding to forty-four atmospheres of air, was slightly insipid. With regard to the diastasic or catalytic fermentations, that is, those produced by the saliva, the pancreatic juice, the vegetable diastase, pepsin, etc., M. Burt has ascertained that they are not modified by compression of the air. Furthermore, on their removal from the air these substances may be enclosed in vessels and preserve their properties indefinitely without alteration. This is, therefore, a certain method of preserving indefinitely, in their natural state, such matters as the juice prepared by bruising the salivary and pancreatic glands, or from the mucous lining of the stomach of slaughtered animals, and thus might be rendered of great service to therapeutics.—*Journal de Médecine*, Aug., 1875.

Biliary Calculi Extracted through the Abdominal Walls.—M. Brousson, of Nîmes, describes the following case: A patient was suffering from a painful, ill-defined tumor, situated in the right flank, between the spine of the ileum and umbilicus. The tumor was taken to be a suppurating ovary, and was opened with the caustic Vienna-paste. The tumor was found to be due to an accumulation of biliary calculi, of which no less than forty were removed. In three months the patient had recovered.—*Journal de Médecine*, Aug., 1875.

Petit Mal.—A case of this disease was reported in the *Peninsular Journal of Medicine* of last month (August), by Dr. J. J. Mulheron, and presents the following points of interest: The patient was a boy, ten years old; the attacks of the disease had commenced two years before, and were apparently in the first instance produced by fright. They had gradually increased in frequency, and when the patient was first seen by Mulheron they occurred from six to twenty times daily, and were confined mainly to the morning hours. The character of the seizures is thus described: Just previous to the attack there was a slight defect in the co-ordination of the muscular movements. The attacks were not characterized by the slightest degree of muscular rigidity, but partook more of the nature of a sudden collapse, the patient squatting as he stood, and the body being perfectly limp. Sometimes the patient would fall, but on reaching the ground would immediately regain his feet. There was no frothing at the mouth or injury to the tongue, nor was the attack preceded by the epileptic scream or followed by coma. With the milder attacks the head would fall suddenly forward, or the flexion would occur in the lumbar region. During these attacks the patient retained his feet, though with much apparent difficulty.

The treatment pursued in this case proved remarkably successful. It consisted in putting the patient upon Brown-Séquard's epileptic formula, to which was added ten drops of the fluid extract of ergot at each dose, and the medicine was repeated every three hours. The ergot was suggested by the heat and congestion of the head observed during the attacks. In addition to this a blister was raised as nearly as possible over the region of the medulla oblongata—this measure having for its indication the irregular muscular movements which preceded the attacks. The next day the seizures were lessened decidedly, both in frequency and in severity. Improvement progressed rapidly, and in a few days the attacks had ceased entirely.

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A FLOATING HOSPITAL FOR CHILDREN.

The exertions of the St. John's Guild to provide, during the past summer, for the sick and destitute children, are worthy of great praise. Although so far the success of the summer excursions shows how warmly the philanthropic heart is interested in such movements, we hardly think that the end reached, at least in a sanitary point of view, is as satisfactory as it would have been had somewhat different means been employed. Of course we have no statistics to support the opinion that these excursions were a toil of pleasure and a positive discomfort to many that went to them, but we think we are warranted on general principles in holding such a view. The popularity of these picnics is a matter of congratulation, not so much in the view of what has actually been accomplished, as what we have reason to expect in the future—a beginning of the bestowal of more lasting sanitary privileges upon a class of sufferers which heretofore have been so much neglected. The profession will willingly give the credit to the indefatigable managers of the Guild for initiating a great reform, and will look to them for the necessary changes in the plan of management which will realize the consummation of a long-deferred hope.

Every one admits that fresh sea air is of the greatest benefit in the treatment of many, if not all, of the infantile diseases which prevail during the summer months in our large cities. The difficulty, however, with the present arrangement is, that the sick ones are not subjected long enough to its influences to do much good, or, in other words, the good which they may gain from it is not counterbalanced by the toil and bustle which attends a short and hurried trip down the Bay or up the Hudson. We will not venture to say how many feeble children are positively damaged by being taken to and from their homes for this purpose, who would be permanently benefited by a residence of a week or more upon a floating hospital.

The question presents itself in this connection as to the feasibility of establishing such a sanitarium under the auspices of those managers who have been so active in popularizing the summer excursions. It is true the benefits would be limited to a much fewer number, but in consideration of the ultimate good to be gained we believe it would be warrantable. The St. John's Guild already have a barge well suited for hospital purposes, at least it can be made so with very little outlay. During the summer months this vessel could be anchored at a convenient distance from the city, and the details of regulation could be such as to make it one of the most useful and best patronized children's hospitals in the country. There is no question that the profession would support it by every influence in its power, and the time would not be far distant when there would be a call for a number of similar establishments; whilst the real good which would be accomplished would, in the end, secure legislative aid in the shape of some State appropriation. The time for agitating the measure seems to have arrived, and it is to be hoped that the officers of the Guild will take the matter into serious consideration, and direct the popular current of sympathy for their undertaking into a channel of the greatest possible usefulness to the poor needy sufferers.

THE LARGE-FEE SYSTEM.

A correspondent, in another column, asks a very pertinent question in reference to the large-fee system which prevails in our city. There is no doubting the fact that one of the rewards of pre-eminence in any profession is a proportionately large fee for services rendered. This is in the main as it should be, and is in keeping with the general principle in every calling which places a premium upon skilled labor. It, however, is no reason why some men of reputation should take advantage of their position by making exorbitant charges. A patient, when he calls upon such a gentlemen, naturally expects to pay a larger bill than he would to an ordinary practitioner, but that such charges should have some reasonable limit is beyond a question. The fact that such is not the case places not only the patient, but the physician who serves him, in a very disagreeable position. We regret to say that cases similar to those alluded to by our correspondent have come to our notice, proving the utility of the establishment of some such plan as is adopted by the leading consulting physicians of London and Paris. Nothing, in our opinion, is calculated to degrade the profession more effectually in the eyes of the public than the charge that the leading men in its ranks are willing to stoop to extortion. Happily, however, cases of this sort are not common.

HOMŒOPATHY IN MICHIGAN UNIVERSITY.

In another column will be found a letter by Dr. Gerrish, which will be read by all who are interested in the discussion concerning the homœopathic trouble in the University of Michigan. As Dr. Gerrish was for a time a teacher in the institution, and is well informed concerning the subject of which he speaks, his opinions are entitled to great respect.

THE LECTURES IN OUR MEDICAL COLLEGES.

We have given considerable space in the present number to a tabulated account of the lectures to be delivered in some of the leading medical colleges, trusting that it may be of value to such as may desire to be informed of what is to be done the coming winter in these schools.

Correspondence.

LARGE-FEE SYSTEM.

To the Editor of The Medical Record.

Sir:—In The Record of July 31st you gave us an editorial upon the "Small-Fee System," in the sentiments of which I express my hearty concurrence. Now, may I ask the favor that you will state your opinions upon the "Large-Fee System," which, in my opinion, is a theme of much higher interest as regards the welfare of our common profession. It is a well-known fact that New York physicians are in the habit of charging more for their services (both in ordinary practice as well as in consultations) than physicians in any other sections of our country. I presume that you have often heard complaints of exorbitant fees demanded both from our own citizens and from those temporarily sojourning with us. If I have occasion to consult Sir William Ferguson, Sir James Paget, or Sir William Gull, in London, I know what amount of "honorarium" will be demanded (for ordinary consultations, one guinea; for a written opinion, two guineas), and I go prepared with the requisite amount. In Paris the same usage prevails. But if I send a patient to consult some of our distinguished confrères I can form no idea beforehand of the amount to be demanded of him; and I know that in some cases the "honorarium" is regarded as exceedingly large in consideration of the services rendered. When I hear patients and the executors of estates complaining of such excessive charges, I am tempted to ask myself the question, "Has the practice of medicine and surgery become a mere money-making pursuit, or is it the same self-denying, high-toned, and charitable profession as in bygone years?"

"Rectus."

* * *

Hydrophobia Extraordinary.—A *rather* incredible story comes from Lucknow, India, where several persons are said to have been attacked with hydrophobia in consequence of eating peaches plucked from a tree, at the root of which dead dogs had been buried. The virus of hydrophobia, says *The Indian Daily News*, had first impregnated the soil, next the sap of the tree, and subsequently transmitted itself to the fruit. The patients all recovered, so that no opportunity was presented for examining for "hydrophobic degeneration" of the medullæ.

HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

To the Editor of The Medical Record.

Sir:—That a great deal of interest is felt by the profession in the homœopathic question in the University of Michigan is clearly shown by the number of articles concerning it which have appeared in various journals. The matter has not as yet, however, as it seems to me, been so presented in The Record as to convey nearly correct impressions to the minds of the very large body of medical men who derive their chief or only information on this point from your journal; and, with your permission, I will attempt a brief and plain statement of the relations between the homœopathists and the University. In doing this I am actuated simply by a desire to help the profession to the exact truth in the premises, in order that they may draw intelligent and just conclusions respecting an affair which concerns not merely western physicians, but all medical men everywhere. It may be well to state that my knowledge of the facts in the case has been derived from original and authentic sources, and not from flying rumors and unreliable reports.

More than twenty years ago the homœopathists in Michigan began making efforts to introduce the teaching of their doctrines into the State University. They effected the enactment of a law, in 1855, requiring the appointment of two homœopathic professors in the medical department; but the regents, claiming "that the law was an infringement upon the rights and prerogatives of the board," and plainly seeing that its execution would seriously damage, perhaps practically destroy, the growing and promising school, positively refused to comply with its provisions. The homœopathists, however, persisted in their endeavors, and in 1873 the Legislature re-enacted the previous law. Again the regents declined to conform to its requirements, and the matter was carried into the courts. The supreme tribunal of the State refused to grant a mandamus compelling the regents to obey the law, and thereby substantially confirmed their action. Though maintaining this position of antagonism to the Legislature, the regents declared that they did so in no spirit of factious opposition, but because they believed the true and best interests of the University demanded it; and they expressed "a willingness to take official charge of an *independent* school of homœopathy and connect it with the University, whenever the means should be provided for the payment of its professors." In 1874 the court again refused to interfere, saying it saw no reason to change the opinion formerly given. At this the friends of the University breathed more freely; for it seemed that the homœopathic difficulty was settled, as long, at all events, as no change took place in the composition of the supreme bench. But the last Legislature revived the matter, though in a somewhat different form. It passed "a bill for the establishment of a homœopathic medical department of the University of Michigan," the text of which was published in The Record of the 15th of May. This bill appropriates six thousand dollars annually, which must be used exclusively for the benefit of the new department. It is worthy of note that while this is a display of legislative generosity such as never was made to the regular school, with all its claims upon the gratitude of the people, the sum appropriated is less than half the amount paid yearly to the teachers in the old department, and is consequently utterly insufficient to defray the ordinary expenses of a medical school with as many professors and an equally ong term. In order, therefore, that the homœopathic chool, if independently and as completely equipped with instructors as the old school, might not be a financially embarrassing addition to the already distressed University, it should have about two hundred paying students, a number which nobody, I think, has any expectation of seeing there; so that the regents, if adhering firmly to the spirit of their resolutions of 1873, could hardly find in this legislative action alone an adequate reason for any response different from that previously given. Whether or not the board would have accepted the grant and the accompanying obligations if liberal and much-needed appropriations for other purposes in the University had not hinged upon their acceptance, it is unnecessary to discuss here and now. The fact is, they agreed to take the money and its attached responsibilities.

Two plans for the details of the expenditure were brought prominently forward. One, proposed by Professor Sager, looked to the establishment of the homœopathic school on a distinct and independent basis. As has just been stated, the six thousand dollars and the fees of the homœopathic students would not cover the expenses of a school with a six months' course and as many teachers as the regular school has; but "by adopting a four months' course, which is the usual period in other homœopathic colleges, it would be entirely within the limits of practicability to appoint a full corps of six professors, and give to each member one thousand dollars, without any disparagement to the new faculty. They would thus avoid the otherwise inevitable collisions, the strifes, and distracting doubts among students and faculties, arising from opposite teachings, and relieve the faculty of the old school of the grave responsibility of employing their talents and experience as teachers, and yielding to their opponents the prestige of an old and well-established regular school, and of thus directly promoting a school of dogmatism, which, in common with nine-tenths of the profession the world over, they believe to be false in principle and prejudicial to the best interests of humanity." This proposition seems to have received little attention and no favor, presumably on account of homœopathic opposition.

The other plan, and that adopted by the regents, was to establish a homœopathic college with a faculty consisting of the president of the University, as official head, and two professors, one to teach the theory and practice of medicine, the other materia medica and therapeutics. The announcement says: "To gain instruction in general chemistry, anatomy, organic and applied chemistry, physiology, ophthalmology, otology and practical anatomy, surgery, obstetrics and diseases of women and children," the homœopathic students "will attend the lectures on those subjects in the 'Department of Medicine and Surgery.' While in attendence on such lectures they shall be entitled to all the privileges accorded to students in said department, and shall conform to all requirements of said department, so far as they apply to the branches which they pursue." Thus, since the same professor in the regular school teaches materia medica and physiology, it appears that the homœopathic students will receive instruction from every member of the old faculty, excepting only the professor of practice. They receive the sacred promise of an equal participation in all the facilities afforded by the University, which includes the daily lecture-room quizzes of the instructors in the old department. These professors will likewise examine them in the studies of their respective chairs at the end of the course, as they do the regular candidates for the degree, and give certificates of their proficiency, which will be used in determining their fitness to practise medicine homœopathically.

If this condition of affairs is accurately described by the words of your official correspondent, in the issue of the 24th of July, when he speaks of the schools as "distinct and independent departments of the University," then must most intelligent members of our profession learn a new definition of the word "independent." It is true that no professorial association in faculty meetings is required by this arrangement, as by that law which excited the regents to a twenty years' war with the legislature; but to what extent are the most of the faculty giving less aid and comfort to their old enemy than if the act of 1873 had been enforced and they had retained their chairs? If the regular school were to suspend operations altogether, what would become of the new and "independent" school, with its "faculty" of two professors and a non-medical figure-head? The answers to these queries will give one an idea of the actual, practical relation of the two schools, and the necessary dependence of one upon the other.

Affairs being in this state, it is a matter of surprise and regret to very many of the most thoughtful men in the profession that the members of the old faculty should not resign their professorships. Those who know them well, however much deploring their decision, are willing to believe that they retain their places in obedience to a conviction that the present arrangement is the worst possible for homœopathy, and will result in its downfall. In contrast to their course, the venerable Dr. Sager, emeritus professor of obstetrics, gynecology, and pædiatrics, who has for years been dean of the medical faculty, believing that the plan adopted compromised the professional honor of the faculty, promptly resigned his office, for which act he has been roundly abused in certain quarters, and as cordially applauded by most of those who have appreciated the precise situation. Professor Gross, in a letter to Professor Sager, commending his determined attitude, remarks that, in his opinion, "The American Medical Association and all our colleges would unquestionably place the medical department of your University under the ban, and cease to recognize your pupils." While some may hesitate to subscribe wholly to this view, few, if any, will deny that it is the duty of the profession to sternly rebuke the government of the University for its action in this wretched business, and to display their disapprobation by warning students against a school whose diploma has been so depreciated that winning it cannot be esteemed a rational object of ambition, and which has a faculty "two-thirds of whose members," as that grand old scholar and gentleman, Dr. Sager, tersely puts it, "are silent partners in a homœopathic firm of teachers."

FREDERIC HENRY GERRISH.

PORTLAND, MAINE, *August* 25, 1875.

* * *

DR. ALEXANDER FLEMMING, of Birmingham, England, died at Buxton, on the 21st of August, aged fifty-two, of chronic renal disease. To the profession of this country he is best known by his researches on the action of aconite. Until 1873, when ill health obliged him to relinquish active work, he had for many years been Professor of Materia Medica at Queen's College, and held many honorable professional positions. He was very successful as a clinical teacher, and his knowledge of therapeutics was very comprehensive. Personally he was as much distinguished for the gentleness of his character as for the thoroughness of his work.

LIST OF THE SUBJECTS TAUGHT AND OF THE TEACHERS IN THE RESPECTIVE SCHOOLS INCLUDED IN THE FOLLOWING TABLE.

SUBJECTS TAUGHT.	MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA, PHILAD.	JEFFERSON MEDICAL COLLEGE, PHILAD.	MEDICAL DEPARTMENT OF HARVARD UNIV., BOSTON.	BELLEVUE HOSPITAL MEDICAL COLLEGE, N. Y.	WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY, N. Y.	MED. DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.	COLLEGE OF PHYSICIANS AND SURGEONS, MED. DEP. OF COLUMBIA COL., N. Y.	ALBANY MEDICAL COLLEGE (MED. DEP. OF UNION COL.).
Anatomy and Histology,	Joseph Leidy,	Wm. H. Pancoast,	Oliver W. Holmes,	Alpheus B. Crosby, Austin Flint, Jr.,	D. H. Stimson,	William Darling, F. D. Weisse,	Henry B. Sands, Thomas T. Sabine,	Henry R. Haskins.
Physiology,	Francis G. Smith,	J. Aitken Meigs,	Henry P. Bowditch,	Austin Flint, Jr.,	G. H. Wynkoop,	J. W. S. Arnold,	John C. Dalton, J. G. Curtiss,	George T. Stevens.
Chemistry,	Robert E. Rogers,	B. Howard Rand,	Edward S. Wood,	R. Ogden Doremus,	H. C. Bolton,	John C. Draper,	Samuel St. John, Chas. F. Chandler,	Maurice Perkins.
Mat. Med. and Therap.,	Joseph Carson,	John B. Biddle,	Robert T. Edes,	Edward G. Janeway,	MaryPutnam Jacobi,	Wm. H. Thomson,	Edward Curtis,	Willis G. Tucker,
Toxicology,	....	Henry Leffmann,	....	R. Ogden Doremus,	....	....	....	Maurice Perkins.
Theory & Prac. of Med.,	Alfred Stillé.	J. M. Da Costa,	Francis Minot,	Austin Flint,	E. D. Hudson,	Alfred L. Loomis,	Alonzo Clark,	....
Clinical Medicine,	William Pepper,	....	Calvin Ellis,	Austin Flint. Edw. G. Janeway.	... .	....	John T. Metcalfe, Francis Delafield.	....
Theory & Prac. of Surg..	D. Hayes Agnew,	Samuel D. Gross,	Henry J. Bigelow,	Wm. H. Van Buren,	Samuel B. Ward,	John T. Darby,	Thomas M. Markoe,	James H. Armsby.
Clin. and Oper. Surgery,	John Neill,	John H. Brinton,	David W. Cheever,	James L. Wood, Wm. H. VanBuren, Lewis A. Sayre, Alex. B. Mott, A. B. Crosby,	....	Afred C. Post, Erskine Mason, Joseph W. Howe,	Willard Parker,	James H. Armsby.
Morbid & Path. Anat.,	James Tyson,	W. W. Keen,	J. B. S. Jackson, R. H. Fitz.	Edw. G. Janeway,	Isaac Adler,	J. W. S. Arnold,	....	William Hailes.
Pathology,	....	....	....	....	....	Alfred L. Loomis,	Edward Delafield,	....
Obstetrics and Diseases of Women and Children,	R. A. F. Penrose, William Goodell,	Ellerslie Wallace,	Ch. E. Buckingham,	Isaac E. Taylor, Fordyce Barker, Wm. T. Lusk, Edm'd R. Peaslee.	Emily Blackwell, S. M. Roberts,	Montrose A. Pallen Charles A. Budd, Walter R. Gillette, John H Ripley,	T. Gaill'rd Thomas, J. W. McLane, A. Jacobi,	William P. Seymour,
Diseases of the Brain and Nervous System,	H. C. Wood, Jr.,	....	John E. Tyler,	John P. Gray,	....	Wm. A. Hammond,	Edward C. Seguin,	....
Diseases of Genito-Urinary System,	....	....	....	Wm. H. Van Buren,	....	....	Fessenden N. Otis,	... .
Dis. of the Eye and Ear,	Wm. F. Norris, Geo. Strawbridge,	William Thomson,	Henry W. Williams,	Henry F. Noyes,	C. E. Hackley,	Chas. InsleePardee, D. B. St. Jno. Roosa,	C. R. Agnew,	George T. Stevens.
Diseases of the Throat,	....	J. Solis Cohen,	....	Beverly Robinson, Frank Bosworth,	....	... .	....	....
Dis. of the Skin & Syph.,	Louis H. Duhring,	F. F. Maury,	James C. White,	Edward L. Keyes,	R. W. Taylor, L. D. Bulkley,	Henry G. Piffard, Fred'k R. Sturgis,	William H. Draper,	....
Fractures & Dislocations,	....	....	....	Lewis A. Sayre,	....	....	....	... ...
Orthopædia,	....	....	....	Lewis A. Sayre,	. ...	Stephen Smith,	....	....
Hygiene,	....	....	....	....	Edward H. Janes,	....	John C. Dalton.	....
Pharmacy,	Joseph Carson,	....	....	....	....	....	....	....
Jurisprudence,	....	J. Aitken Meigs,	Ch. E. Buckingham,	John P. Gray,	....	Stephen Smith,	Samuel St. John, Chas. F. Chandler,	....

THE ORDER OF LECTURES IN SOME OF THE PRINCIPAL EASTERN MEDICAL SCHOOLS,

During the Session of 1875–76.

Note.—The heading Clin. Inst. relates to Hospital visits, Medical and Surgical, also to attendance at the special clinics for Diseases of the Eye and Ear, Skin, Women and Children, and Nervous Diseases. The letters L and R indicate Lecture and Recitation respectively.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9 A.M.	Harvard. *1st year.* Laboratory. Histology after Jan. 1 *2d year.* Clin. Inst. *3d year.* Clin. Inst. Bellevue. *Prof. Lusk.* Obstetrics. Woman's College (N. Y.). *Prof. Janes.* Hygiene. University of the City of N. Y. *Prof. Darling.* Anatomy. Albany Med. Col. *Prof. Armsby.* Surgery.	Harvard. *1st year.* Laboratory. *2d year.* Clin. Inst. *3d year.* Clin. Inst. Bellevue. *Prof. Crosby.* Anatomy. Woman's College (N. Y.). *Prof. Putnam-Jacobi.* Therapeutics. University of the City of N. Y. *Prof. Darling.* Anatomy. Albany Med. Col. *Prof. Armsby.* Surgery. Col. of Phys. and Surg. *Prof. Curtis.* Materia Medica.	Harvard. *1st year.* Laboratory. *2d year.* Clin. Medicine. *3d year.* Clin. Medicine. Bellevue. *Prof. Crosby.* Anatomy. Woman's College (N. Y.) *Prof. Blackwell.* Uterine Clinic. University of the City of N. Y. *Prof. Darling.* Anatomy. Albany Med. Col. *Prof Armsby.* Surgery. Col. of Phys. and Surg. *Prof. Curtis.* Materia Medica.	Harvard. *1st year.* Laboratory. Histology after Jan. 1 *2d year.* Clin. Inst. *3d year.* Clin. Inst. Bellevue. *Prof. Crosby.* Anatomy. Woman's College (N. Y.). *Prof. Janes.* Hygiene. University of the City of N. Y. *Prof. Darling.* Anatomy. Albany Med. Col. *Prof. Armsby.* Surgery. Col. of Phys. and Surg. *Prof. Curtis.* Materia Medica.	Harvard. *1st year.* Laboratory. *2d year.* Clin. Inst. *3d year.* City Hospital. Opthalm. & Otology. Bellevue. *Prof. Lusk.* Obstetrics. Woman's College (N. Y.). *Prof. Putnam-Jacobi.* Materia Medica. University of the City of N. Y. *Prof. Darling.* Anatomy. Albany Med. Col. *Prof. Armsby.* Surgery. Col. of Phys and Surg. *Prof. Curtis.* Materia Medica.	Harvard. *1st year.* Laboratory. *2d year.* Chemistry (R.). *3d year.* Theory & Practice. Bellevue. *Prof. Lusk.* Obstetrics. Woman's College (N. Y.). *Prof. Putnam-Jacobi.* Therapeutics. University of the City of N. Y. *Prof Weisse.* Surgical Anatomy. Col. of Phys. and Surg. *Prof. St. John.* Chemistry.
10 A.M.	Harvard. *1st year.* Laboratory. Histology after Jan. 7th. *2d year.* Clin. Inst. *3d year.* Theory and Practice (L). Univ. of Penn. *Prof. Stillé.* Practice of Med. Jefferson. *Prof Biddle.* Mat. Med. & Therap. Bellevue. *Prof. Janeway.* Mat. Medica. Woman's College (N. Y.). Demonstrator. Univ. of the City of N. Y. *Prof. Arnold.* Physiology. Albany Med. Col. *Prof. Webster.* Physiology. Col. of Phys. and Surg. *Prof. Dalton.* Physiology. (*Dr. J. G. Curtis* during Nov. and Dec)	Harvard. *1st year.* Laboratory. *2d year.* Clin. Inst. *3d year.* Clin. Inst. Univ. of Penn. *Prof. Stillé.* Practice of Med. Jefferson. *Prof. Biddle.* Mat. Med. & Therap. Bellevue. *Prof. Janeway.* Med. Clinic. Woman's College (N.Y.). Demonstrator. Univ. of the City of N. Y. *Prof. Pallen.* Gynæcology. Albany Med. Col. *Prof. Lansing.* Practice of Med. Col. of Phys. and Surg. *Prof. Dalton.* Physiology. (*Dr. J. G. Curtis* during Nov. and Dec.)	Harvard. *1st year.* Laboratory. *3d year.* Clin. Inst. Jefferson. Hospital. Bellevue. *Prof. Mott.* Out-door Surg. Clinic from 10 to 12. Woman's College (N.Y.). Demonstrator. Recitation in Obstet. Univ. of the City of N. Y. *Prof. Arnold.* Physiology. Albany Med. Col. *Prof. Lansing.* Medical Clinic. Col. of Phys. and Surg. *Prof. Dalton.* Physiology. (*Dr. J. G. Curtis* during Nov. and Dec.)	Harvard. *1st year.* Laboratory. Histology after Jan. 1. *2d year.* Clin. Inst. *3d year.* Clin. Inst. Univ. of Penn. *Prof. Stillé.* Practice of Med. Jefferson. *Prof. Biddle.* Mat. Med. & Therap. (During January and Feb., *Prof. Da Costa* instead of *Prof. Biddle.*) Bellevue. *Prof. Flint.* Med. Clinic until Jan. 1, *Prof. Gray* lectures after Jan. 1 Woman's College (N. Y.). Demonstrator. Univ. of the City of N. Y. *Prof. Darby.* Surgery. Albany Med. Col. *Prof. Lansing.* Practice of Med. Col. of Phys. and Surg. *Prof. Dalton.* Physiology. (*Dr. J. G. Curtis* during Nov. and Dec.)	Harvard. *1st year.* Chemistry (R.). *2d year.* Clin. Inst. *3d year.* Clin. Inst. Univ. of Penn. *Prof. Stillé.* Practice of Med. Jefferson. *Prof. Biddle.* Mat. Med. & Therap. Bellevue. *Prof. Gray.* Lecture after Jan. 1. Woman's College (N.Y.). Demonstrator. Univ. of the City of N. Y. *Prof. Arnold.* Physiology. Albany Med. Col. *Prof. Lansing.* Practice of Med. Col. of Phys. and Surg. *Prof. McLane.* Obstetrics.	Harvard. *1st year.* Physiology (R.). *2d year.* Clin. Inst. *3d year.* Clin. Inst. Jefferson. Hospital. Bellevue. *Prof. Janeway.* Mat. Medica. Woman's College (N. Y.). Demonstrator. Recitation in Obstet. Univ. of the City of N. Y. *Prof. Budd.* Obstetrics. Albany Med. Col. *Prof. Armsby.* Surgical Clinic. Col. of Phys. and Surg. *Prof. McLane.* Obstetrics.
11 A.M.	Harvard. *1st year.* Physiology (L). *2d year.* Clin. Surgery (L). *3d year.* Clin. Surgery (L). Univ. of Penn. *Prof. Leidy.* Anatomy.	Harvard. *1st year.* Physiology (L). Univ. of Penn. *Prof. Rogers.* Chemistry.	Harvard. *1st year.* Laboratory. *3d year.* Surgery (L).	Harvard. *1st year.* Laboratory. *2d year.* Materia Medica. *3d year.* Surgery (L). Univ. of Penn. *Prof. Rogers.* Chemistry.	Harvard. *1st year.* Physiology (L). Univ. of Penn. *Prof. Rogers.* Chemistry.	

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
11 A.M.	JEFFERSON. *Prof. Gross.* Practice of Surgery.	JEFFERSON. *Prof. Gross.* Practice of Surgery.	JEFFERSON. Hospital.	JEFFERSON. *Prof. Gross.* Practice of Surgery.	JEFFERSON. *Prof. Gross.* Practice of Surgery.	JEFFERSON. Hospital.
	BELLEVUE. *Prof. Flint, Jr.* Physiology.	BELLEVUE. *Prof. Flint, Jr.* Physiology.	BELLEVUE. *Prof. Mott.* Surg. Clinic.	BELLEVUE. *Prof. Janeway.* Pathological Anat.	BELLEVUE. *Prof. Flint, Jr.* Physiology.	BELLEVUE. *Prof. Sayre.*
	WOMAN'S COLLEGE (N. Y.). *Prof. Putnam-Jacobi.* Materia Medica.	WOMAN'S COLLEGE (N. Y.). *Prof. Bolton.* Chemistry.	WOMAN'S COLLEGE (N. Y.). *Prof. Hudson.* Medical Clinic.	WOMAN'S COLLEGE (N. Y.). *Prof. Bolton.* Chemistry.	WOMAN'S COLLEGE (N. Y.). *Prof. Roberts.* Children's Clinic.	WOMAN'S COLLEGE. (N. Y.). *Prof. Ward.* Surgery.
	UNIV. OF THE CITY OF N. Y. *Prof. Loomis.* Medical Clinic.	UNIV. OF THE CITY OF N. Y. *Prof. Thomson.* Materia Medica.	UNIV. OF THE CITY OF N. Y. *Dr. Withaus.* On Adulterations of Food, until Oct. 1. *Prof. Loomis.* Practice of Med. After Oct. 1.	UNIV. OF THE CITY OF N. Y. *Prof. Smith.* Surgical Clinic in Bellevue Hosp.	UNIV. OF THE CITY OF N. Y. *Dr. Withaus.* On Adulterations of Food, until Oct. 1. *Prof. Loomis.* Practice of Med. after Oct. 1.	UNIV. OF THE CITY OF N. Y. *Prof. Thomson.* Medical Clinic in Bellevue Hosp.
	ALBANY MED. COL. *Prof. Haskins.* Anatomy.	ALBANY MED. COL. *Prof. Perkins.* Chemistry.	ALBANY MED. COL. *Prof Tucker.* Materia Medica.	ALBANY MED. COL. *Prof. Perkins.* Chemistry.	ALBANY MED. COL. *Prof. Webster.* Physiology.	
	COL. OF PHYS. AND SURG. *Prof. McLane.* Obstetrics.	COL. OF PHYS. AND SURG. *Prof. Sabine.* Anatomy. (*Prof. Sands* during February.)	COL. OF PHYS. AND SURG. *Prof. Sabine.* Anatomy. (*Prof. Sands* during February.)	COL. OF PHYS. AND SURG. *Prof. Sabine.* Anatomy. (*Prof. Sands* during February.)	COL. OF PHYS. AND SURG. *Prof. Sands.* Anatomy.	COL. OF PHYS. AND SURG. *Prof. Sands.* Anatomy.
12 M.	HARVARD. *1st year.* Laboratory. *2d year.* Pathol. Anat. (L.) *3d year.* Obstetrics (L.)	HARVARD. *1st year.* Chemistry (L.) *3d year.* Surgery (L.) till December.	HARVARD. *1st year.* Laboratory. *3d year.* Obstetrics (L.)	HARVARD. *1st year.* Laboratory. *2d year.* Materia Med. *3d year.* Obstetrics (R.)	HARVARD. *1st year.* Laboratory. *3d year.* Venereal Dis.	JEFFERSON. Surgical Clinic.
	UNIV. OF PENN. *Prof. Carson.* Mat. Med.	UNIV. OF PENN. *Prof. Agnew.* Surgery.		UNIV. OF PENN. *Prof. Agnew.* Surgery.	UNIV. OF PENN. *Prof. Agnew.* Surgery.	
	JEFFERSON. *Prof. Rand.* Chemistry.	JEFFERSON. *Prof. Rand.* Chemistry.	JEFFERSON. Surgical Clin.	JEFFERSON. *Prof. Rand.* Chemistry.	JEFFERSON. *Prof. Da Costa.* Practice of Med.	
	WOMAN'S COL. (N. Y. *Prof. Stimson.* Anatomy.	WOMAN'S COLLEGE (N. Y.) *Prof. Bulkley.* Skin Clinic.	WOMAN'S COLLEGE (N. Y.). *Prof. P. Jacobi.* Materia Medica.	WOMAN'S COL. (N. Y.) *Prof. Hackley.* Eye and Ear Clinic.	WOMAN'S COLLEGE (N. Y.). *Prof. Bolton.* Chemistry.	WOMAN'S COLLEGE (N. Y.). *Prof. Ward.* Surgical Clinic.
	ALBANY MED. COL. *Prof. Webster.* Physiology.	ALBANY MED. COL. *Prof. Haskins.* Anatomy.	ALBANY MED. COL. *Prof. Haskins.* Anatomy.	ALBANY MED. COL. *Prof. Haskins.* Anatomy.	ALBANY MED. COL. *Prof. Stevens.* Ophthalmology and Otology Clinic.	
	COL. OF PHYS. AND SURG. *Prof. Parker.* Surgical Clinic.	COL. OF PHYS. AND SURG. *Prof. Markoe.* Surgery.	COL. OF PHYS. AND SURG. *Prof. Markoe.* Surgery.	COL. OF PYS. AND SURG. *Prof. Clark.* Medical Clinic.	COL. OF PHYS. AND SURG. *Prof. Markoe.* Surgery.	COL. OF PHYS. AND SURG. *Prof. Markoe.* Surgery.
1 P.M.	HARVARD. *1st year.* Last 11 weeks Anatomy (L.).	HARVARD. *1st year.* Anatomy (L.)	HARVARD. *1st year.* Anatomy R. first 8 w'ks L. last 11 w'ks. *2d year.* Chemistry (L.)	HARVARD. *1st year.* Anatomy (L.).	HARVARD. *1st year.* Anatomy (R.).	HARVARD. *1st, 2d, and 3d years.* Museum.
	UNIV. OF PENN. Clinic, Dis. of the Nerv. Syst.	UNIV. OF PENN. Medical Clinic.	UNIV. OF PENN. Clinic, Dis. of Women, Clinic, Surgical	UNIV. OF PENN. Clinic, Dis. of the Eye.	UNIV. OF PENN. Clinic, Patholog. Anatomy.	UNIV. OF PENN. { Medical Clinic. { Surgical Clinic.
	JEFFERSON. Medical Clinic.	JEFFERSON. Clinic, Diseases of Women and Child'n.		JEFFERSON. Medical Clinic.	JEFFERSON. Clinic, Dis. of the Eye and Ear.	
		UNIV. OF THE CITY OF N. Y. *Prof. Piffard.* Dermatology Clinic.	UNIV. OF THE CITY OF N. Y. *Prof. Darby.* Surgical Clinic.	UNIV. OF THE CITY OF N. Y. *Dr. Ripley.* Clinic, Dis. of Chil.	UNIV. OF THE CITY OF N. Y. *Prof. Thomson.* Medical Clinic.	UNIV. OF THE CITY OF N. Y. *Prof. Post.* Surgical Clinic.
1.30 P.M.	BELLEVUE. *Prof. Noyes.* Eye Clinic.	BELLEVUE. *Prof. Van Buren.* Clinic at Charity Hospital until Jan. 1 Lecture at College after Jan. 1.	BELLEVUE. *Prof. Sayre.* Surg. Clinic.	BELLEVUE. Clinic for Diseases of Women and Children	BELLEVUE. *Prof. Flint.* Medical Clinic.	BELLEVUE. *Prof. Wood.* Surgical Clinic.
	UNIVERSITY OF THE CITY OF N. Y. Clinics at Charity Hospital. *Prof. Pallen.* Diseases of Women. During Sept. and Oct *Dr. Sturgis.* Venereal Diseases. During Nov. and Dec *Prof. Howe.* Surgical Clinics during Jan. and Feb.	COLLEGE OF PHYS. AND SURG. *Prof. Clark.* Medical Clinic at Bellevue Hospital. *Prof. Jacobi.* Clinic for Diseases of Children.				
	COLLEGE OF PHYS. AND SURG. *Prof. Delafield.* Medical Clinic at Bellevue Hospital.					

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
2 P.M.	Woman's College (N.Y.). *Prof. Wynkoop.* Physiology.	Woman's College (N. Y.). *Prof. Stimson.* Anatomy.	Woman's College (N. Y.). *Prof. Wynkoop.* Physiology.	Woman's College (N. Y.). *Prof. Stimson.* Anatomy.	Woman's College (N. Y.). *Prof. Wynkoop.* Physiology.	Woman's College (N. Y.). *Prof. Adler.* Pathology.
		Univ. of the City of N. Y. *Prof. Loomis.* Clinic in Bell. Hosp.	Univ. of the City of N. Y. *Prof. Roosa.* Ophthalmology and Otology.	Univ. of the City of N. Y. *Prof. Thomson.* Materia Medica.	Univ. of the City of N. Y. *Prof. Mason.* Surgery.	Univ. of the City of N. Y. *Prof. Mason.* Surgical Clinic in Bellevue Hospital.
2.30.	Bellevue. *Prof. Keyes.* Clinic. Disorders of the Skin.		Col. of Phys. & Surg. *Prof. Detmold.* Surgical Clinic.		Bellevue. *Prof. Flint.* Clinic. Diseases of the Chest.	
	Col. of Phys. & Surg. *Prof. Markoe* or *Prof. Sands.* Surgical Clinic at Bellevue Hospital.					
3 P.M.	Harvard. *2d year.* Pathological Microscopy.	Harvard. *2d year.* Patholog. Anat. (R.) *3d year.* Theory & Prac. (R.)	Harvard. *2d year.* Patholog. Anat. (L.)	Harvard. *2d year.* Patholog. Microscopy *3d year.* Theory & Prac. (R.)	Harvard. *2d year.* Patholog. Anat. (R.)	Univ. of the City of N. Y. *Prof. Hammond.* Clinic. Dis. of the Mind and Nervous System.
		Bellevue. *Prof. Doremus.* Chemistry, after Jan. 1.	Bellevue. *Prof. Van Buren.* After Jan. 1.	Bellevue. *Prof. Wood,* until Jan. 1. *Prof. Keyes,* after Jan. 1.		
	Woman's College (N. Y.) *Prof. Blackwell.* Obstetrics.	Woman's College (N. Y.). *Prof. Ward.* Surgery.	Woman's College (N. Y.) *Prof. Ward.* Surgery.	Woman's College (N. Y.). *Prof. Blackwell.* Obstetrics.	Woman's College (N. Y.). *Prof. Blackwell.* Obstetrics.	Col. of Phys. and Surg. *Prof. Seguin.* Clinic for Dis. of the Nervous System.
		Univ. of the City of N. Y. *Prof. Darby.* Surgery.	Univ. of the City of N. Y. *Prof. Thomson.* Materia Medica.	Univ. of the City of N. Y. *Prof. Arnold.* On Secretion, until Oct. 1; *Prof. Loomis,* Prac. of Med. after Oct. 1.	Univ. of the City of N. Y. *Prof. Hammond.* Dis. of the Mind and Nervous System	
	Albany Med. Col. *Prof. Seymour.* Obstetrics.	Albany Med. Col. *Prof. Perkins.* Chemistry.	Albany Med. Col. *Prof. Seymour.* Obstetrics.	Albany Med. Col. *Prof. Perkins.* Chemistry.	Albany Med. Col. *Prof. Seymour.* Diseases of Women.	
	Col. of Phys. and Surg. *Prof. Draper.* Clinic for Disease of the Skin.	Col. of Phys. and Surg. *Prof. Clark.* Practice of Med.		Col. of Phys. and Surg. *Prof. Otis.* Clinic for Genito-Urinary Diseases.	Col. of Phys. and Surg. *Prof. Thomas.* Clinic for Diseases of Women.	
3.30 P.M.	Bellevue. *Prof. Van Buren.*	Univ. of Penn. *Prof. Leidy.* Anatomy.	Bellevue. *Prof. Van Buren,* until Jan. 1.	Univ. of Penn. *Prof. Leidy.* Anatomy.	Univ. of Penn. *Prof. Leidy.* Anatomy.	
	Univ. of the City of N. Y. *Prof. Darby.* Surgery.	Bellevue. *Prof. Doremus.* Chemistry, until Jan. 1.			Bellevue. *Prof. Doremus.* Chemistry.	
4 P.M.	Univ. of Penn. *Prof. Penrose.* Obstetrics.	Harvard. *3d year.* Dermatology (L.).	Harvard. *2d year.* Surgery (R.). *3d year.* Therapeutics (L.).	Harvard. *2d and 3d years.* Clin. Conference.	Harvard. *3d year.* Therapeutics (L.).	Univ. of Penn. *Prof. Penrose.* Obstetrics.
	Jefferson. *Prof. Pancoast.* Anatomy.	Jefferson. *Prof. Pancoast.* Anatomy.	Univ. of Penn. *Prof. Penrose.* Obstetrics.	Jefferson. *Prof. Pancoast.* Anatomy.	Jefferson. *Prof. Pancoast.* Anatomy.	Jefferson. *Prof. Meigs.* Physiology and Med. Jurisp.
	Woman's College (N. Y.). *Prof. Hudson.* Practice of Medicine.	Bellevue. *Prof. Flint.* Prac. of Med. after Jan. 1st.	Jefferson. *Prof. Meigs.* Physiology and Med. Jurisprudence.	Bellevue. *Prof. Doremus.* Chemistry.	Woman's College (N. Y.). *Prof. Hudson.* Practice of Med.	Univ. of the City of N. Y. *Prof. Smith.* Orthopædic Surg. and Surg. Jurisp.
	Albany Med. Col. *Prof. Tucker.* Materia Medica.	Woman's College (N. Y.). *Prof. Adler.* Pathology.	Bellevue. *Prof. Flint.* Practice of Med. after Jan. 1.	Woman's College (N. Y.). *Prof. Hudson.* Practice of Med.	Univ. of the City of N. Y. *Prof. Draper.* Chemistry.	
	Col. of Phys. and Surgeons. *Dr. Delafield,* Practice of Medicine.	Univ. of the City of N. Y. *Prof. Budd.* Obstetrics.	Women's College (N. Y.). *Prof. Putnam-Jacobi.* Therapeutics.	Univ. of the City of N. Y. *Prof. Budd.* Obstetrics.	Albany Med. Col. *Prof. Tucker.* Materia Medica.	
		Albany Med. Col. *Prof. Stevens.* Ophthalmology and Otology.	Univ. of the City of N. Y. *Prof. Draper.* Chemistry.	Albany Med. Col. *Prof. Hailes.* Pathological Anatomy.	Col. of Phys. and Surgeons. *Prof. Clark.* Practice of Med.	
		Col. of Phys. and Surgeons. *Dr. Delafield,* Practice of Med.	Albany Med. Col. *Prof. Hailes.* Pathological Anat.	Col. of Phys. and Surgeons. *Prof. Clark.* Practice of Med.		
			Col. of Phys. and Surgeons. *Prof. Clark.* Practice of Med.			
4.30	Bellevue. *Prof. Flint.* Practice of Med.	Bellevue. *Prof. Flint.* Practice of Med. until Jan. 1.	Bellevue. *Prof. Flint.* Practice of Med. until Jan. 1.		Bellevue. *Prof. Peaslee.* Gynæcology.	

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
5 P. M.	Harvard. *1st year.* Practical Anat. after Jan. 1. *2d year.* Practical Anat. till Jan. 1 *3d year.* Otology.	Harvard. *1st year.* Practical Anat. after Jan. 1. *2d year.* Practical Anat. till Jan. 1.	Harvard. *1st year.* Practical Anat. after Jan. 1. *2d year.* Practical Anat. till Jan. 1.	Harvard. *1st year.* Practical Anat. after Jan. 1. *2d year.* Practical Anat. till Jan. 1.	Harvard. *1st year.* Practical Anat. after Jan. 1. *2d year.* Practical Anat. till Jan. 1.	
	Univ. of Penn. *Prof. Smith.* Physiology.		Univ. of Penn. *Prof. Smith.* Physiology.			Univ. of Penn. *Prof. Smith.* Physiology.
	Jefferson. *Prof. Wallace.* Obstetrics and Dis. of Women and Children.	Jefferson. *Prof. Da Costa.* Practice of Med.	Jefferson. *Prof. Da Costa.* Practice of Med.	Jefferson. *Prof. Wallace.* Obstetrics and Diseases of Women and Children.	Jefferson. *Prof. Meigs.* Physiology and Med. Jurisp.	Jefferson. *Prof. Wallace.* Obstetrics and Dis. of Women and Children.
	Col. of Phys. and Surg. *Prof. Thomas.* Diseases of Women.	Col. of Phys. and Surg. *Prof. St. John.* Chemistry.	Col. of Phys. and Surg. *Prof. St. John.* Chemistry.	Col. of Phys. and Surg. *Prof. Chandler.* Chemistry.	Col. of Phys. and Surg. *Prof. St. John.* Chemistry.	
7 P.M.	Jefferson. Anatomy. Recapitulation.			Jefferson. Anatomy. Recapitulation.		
7.30.		Univ. of Penn. *Prof. Hodge.* Demonstrations of Anatomy.		Univ. of Penn. *Prof. Hodge.* Demonstrations of Anatomy.	Albany Med. Col. Demonstrations of Histology, Physiology, and Pathological Anatomy.	

The regular winter courses in the foregoing schools commence as follows:—
Tuesday, Sept. 7.—Albany Med. College.
Wednesday, Sept. 29.—Bellevue Hospital Med. College, and the Med. Dept. of the Univ. of the City of New York.
Thursday, Sept. 30.—Med. Department of Harvard Univ.
Friday, Oct. 1.—College of Physicians and Surgeons.
Monday, Oct. 4.—Med. Department of the University of Pennsylvania, and Jefferson Med. College.
Tuesday, Oct. 5.—Woman's Medical College of the N. Y. Infirmary.

CHANGES IN THE PUBLIC SERVICE.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Sept. 5th, 1875, to Sept. 11th, 1875.

ARMY.

Weeds, J. F., Surgeon.—Granted leave of absence for one month on surgeon's certificate of disability. S. O. 128, Dep't of the South, Sept. 8, 1875.

Huntington, D. L., Assistant Surgeon.—When relieved by Assistant Surgeon Price, to comply with par. 5, S. O. 158, c. s., A. G. O. S. O. 93, Dep't of California, August 25, 1875.

O'Rielly, R. M., Assistant Surgeon.—Relieved from temporary duty at Fort Hamilton, N. Y. H., and to rejoin his station, Fort McHenry, Md. S. O. 175, Mil. Div. of the Atlantic, Sept. 3, 1875.

Kimball, J. P., Assistant Surgeon.—Leave of absence extended one month. S. O. 97, Mil. Div. of the Missouri, Sept. 8, 1875.

Price, C. E., Assistant Surgeon.—Assigned to duty at Angel Island, Cal. S. O. 93, c. s., Dep't of California.

NAVY.

September 8.

Scofield, W. K., Surgeon.—Ordered to the receiving ship *Ohio*, at Boston.

Woolverton, T., Surgeon.—Detached from the receiving ship *Ohio*, at Boston, and ordered to the Naval Hospital at Norfolk, Va.

Cook, George H., Surgeon.—Detached from the Naval Hospital at Norfolk, Va., and placed on waiting orders.

WEEKLY BULLETIN OF THE MEETINGS OF MEDICAL SOCIETIES.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office, 27 Great Jones Street, one week previous, to insure their appearance.*]

Monday, Sept. 20th.—Sect. of Obstetrics of the N. Y. Acad. of Med., 12 W. 31st street.—N. Y. Soc. of Neurology and Electrology.

Tuesday, Sept. 21st.—N. Y. Obstetrical Soc.—Med. Soc. of the Co. of Kings.—Semi-Annual Meeting of the Homœopathic Medical Soc. of the State of N. Y., at the Ophthalmic Hospital, cor. Third av. and 23d st.

Wednesday, Sept. 22d.—N. Y. Pathological Soc.—Homœopathic Med. Soc. of the State of N. Y.

Thursday, Sept. 23d.—N. Y. Medico-Legal Soc. "The Penal Laws Relating to Suicide in Ancient and Modern Times," by R. S. Guernsey, of the N. Y. Bar.

Monday, Sept. 27th.—Med. Soc. of the Co. of N.Y., Nomination of officers.

Tuesday, Sept. 28th.—Adjourned Annual Meeting of the Alumni Association of Bellevue Hosp. Med. Col., at the rooms of the Academy of Medicine, 12 West 31st st., at 8 P.M.

Friday, Oct. 1st.—Medical Library and Journal Assoc. (first meeting of the season).

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The University of Odessa, in Russia, is taking measures to establish a Department of Medicine.

Dr. Smith-Shand has been appointed to the Chair of Practice of Medicine in the Scottish University of Aberdeen.

Dr. John H. Pooley, of Yonkers, has accepted the position of Professor of Surgery in Starling Medical College, Columbus, Ohio.

American Pharmaceutical Association.

TWENTY-THIRD ANNUAL MEETING OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

[Special report for THE MEDICAL RECORD.]

THIS Association met at Boston, September 7th, for the fourth time in its history. Its objects are the general improvement of the science and art of pharmacy, the elevation of the standard of education, etc., and the Association numbers about 1,000 active members.

ANNUAL ADDRESS.

A committee on credentials being appointed, Mr. C. Lewis Diehl, of Louisville, Ky., read his annual address, which alluded to the contributions to science which pharmaceutists were constantly making, and to the improved methods of obtaining results through the rapid strides of modern chemistry. Methods of preparation of remedies have thus been developed which make their production on a large scale remunerative. Hence the pharmacist depends on commerce for many of the products that were formerly prepared by him, and as a consequence can confine his attention mainly to the determination of the purity of his purchases and to the production of galenicals. He then alluded to several recent remedies, restricting himself rather to their general features than their therapeutic relations, such as salicylic acid, jaborandi, and digitaline, and other substances obtained from digitalis. As most of the processes of obtaining these remedies are detailed in the medical and pharmaceutical journals, we need not detail them here. Salicylic acid differing from carbolic acid by having two additional equivalents of carbonic acid, the carbolate of sodium is heated in a perfectly dry and dusty state to a certain temperature, and carbonic acid passed through the mixture, a large proportion of the carbolic acid being thus converted into the salicylic acid. By proper methods it is then readily purified, and found to be identical with the salicylic acid obtained from wintergreen.

The President also recommended changes in the constitution and a different method of disposing of papers, so that objectionable ones might be returned to the author, and modifications made by him, if necessary.

OFFICERS OF THE ASSOCIATION.

The officers of the Association for 1875 are the following:—*President*, C. Lewis Diehl, of Kentucky; *Vice-Presidents*, Joseph Roberts, of Maryland, Wm. T. Wenzell, of California, Augustus R. Bayley, of Mass.; *Treasurer*, Charles A. Tufts, of N. H.; *Permanent Secretary*, John M. Maisch, of Penn.; *Local Secretary*, S. A. D. Sheppard, of Mass.; *Reporter on Progress of Pharmacy*, C. Lewis Diehl, of Ky. The Committee on Credentials reported the names of more than a hundred candidates for membership, all of whom were elected.

The constitution prescribes that "every pharmacist and druggist of good moral and professional standing, whether in business on his own account, retired from business, or employed by another, and those teachers of pharmacy, chemistry, and botany who may be especially interested in pharmacy and materia medica, who, after duly considering the objects of the Association and the obligations of its constitution and by-laws, are willing to subscribe to them, are eligible to membership."

Objection was made to one of the candidates, Prof. S. P. Sharples, State Assayer, and Prof. of Chemistry in the Boston Dental College, as being ineligible from his non-connection with a college of pharmacy, but the chair deciding in his favor he was elected. A Committee on Nominations was then appointed, and other Special Committees, after which the Association adjourned.

OFFICERS ELECT.

On Wednesday morning the session opened with the report of the Committee on Nominations as follows:

President—Professor George F. H. Markoe, of Boston.

Vice-Presidents—Fred Hoffman, of New York, T. Roberts Baker, of Richmond, C. F. G. Meyer, of St. Louis.

Treasurer—Charles A Tufts, of Dover, N. H.

Permanent Secretary—Professor John M. Maisch, of Philadelphia.

Reporter on Progress of Pharmacy—C. Lewis Diehl, of Louisville, Ky.

Executive Committee—George W. Kennedy, Pottsville, Pa.; Joseph L. Lemberger, Lebanon, Pa.; William M. McIntyre, Philadelphia; Charles A. Heinitsh, Lancaster, Pa.; John M. Maisch, Permanent Secretary, *ex-officio.*

Committee on Papers and Queries—William Saunders, Ontario, Can.; Emil Shaffer, Louisville, Ky.; James H. Taylor, New York.

Business Committee—Jacob D. Wells, Cincinnati; Paul Balluff, New York City; William C. Bakes, Philadelphia.

These gentlemen were elected, and the new President at once entered upon his duties.

The report of the Executive Committee was read by the chairman, George W. Kennedy. Since the organization of the Society there had been a total membership of 1,697; died, 136; dropped for various causes, 477; resigned, 101; leaving a balance of 983. The number of honorary members was 30, of whom 10 had died. The report closed with obituary notices of the members who had died during the year.

REPORT OF SECRETARY.

The report of the Permanent Secretary was then read by that officer, Prof. John M. Maisch, of Philadelphia. After discussing matters connected with the next annual meeting, he stated that the invitation of the Association to the Fifth International Congress, to meet in Philadelphia during the Centennial year, was laid before that body at its meeting in St. Petersburg, but no decision had been arrived at, the selection of the time and place of meeting being in the hands of the executive committee of that organization. The Congress expressed itself by resolution in favor of meeting in London, and several speakers advocated an interval of five years before another meeting. After the adjournment of the International Congress the members met and divided among themselves a draft of an international pharmacopœia prepared by the Paris Pharmaceutical Society, and agreed upon the principles which should guide the review and completion of the draft. It was decided that evaporation *in vacuo* should not be directed in the preparation of extracts; that the fluid extracts of the United States Pharmacopœia should be critically examined; and that the temperature for taking the specific gravity of all liquids should be uniformly 59° Fahrenheit. It was expected that the critical review of the submitted draft would be completed by December, when it was to be multiplied and communicated to the various pharmaceutical societies for examination and report. At the meeting in Louisville the Association decided to participate in this undertaking, and correspondence to that end was now in progress. A cordial invitation had been extended to the pharmacists of all nations to meet with the American Pharmaceutical Association in 1876. The secretary recommended that the Association communicate directly with the various national and local societies of foreign countries upon this subject. The Philadelphia College of Pharmacy had invited the members of foreign societies to make the college building their headquarters, and proposed to engage proper persons to give needful and useful information to strangers. As the chief interest outside of the sessions of the Association next year would centre in the Centennial Exposition, where pharmaceutical and allied products from all parts of the world would be exhibited, the report recommended that no exhibition be held by the Society at its next meeting. The secretary had read a paper on American Pharmacy and its Relations to Public Health, before the American Public Health Association, in Philadelphia, in November, 1874, and had discussed therein the importance of pharmacy to the public welfare and health, the large amount of spurious and adulterated drugs and preparations formerly imported into this country, and the salutary effect of the drug law; also home adulterations, patent medicines, and measures to decrease their sale, and other questions of importance to the pharmacist and the public; urging particularly the necessity of the enactment of laws regulating and restricting the sale of drugs and medicines to properly educated pharmacists.

UNOFFICINAL FORMULÆ.

The Committee on Unofficinal Formulas presented their report through their chairman, R. V. Mattison, of Philadelphia. The province of this committee is to collect such formulas as are found to be in use in the preparation of extracts, elixirs, etc., which have not become officinal by being admitted to the United States Pharmacopœia. The report covered twenty-two such formulas. It appearing that the formulas for elixirs would again be represented in the report of the Committee on Elixirs—on the principle that a double-barrelled gun is twice as effective as a single-barrelled gun, it being desirable to sweep away the whole elixir business—the report of the committee was amended by striking out the elixir formulas, and then accepted; the formulas thus stricken out were referred to the Committee on Elixirs.

The Treasurer reported a balance of $873.16, and the Executive Committee suggested the names of 122 candidates for membership, all of whom were elected.

REPORT OF COMMITTEE ON ADULTERATION.

Dr. A. W. Miller, of Philadelphia, then read the report of the Committee on Adulteration and Sophistications. To give the subject the widest publicity advertisements were inserted in the pharmaceutical journals requesting information of adulterations and sophistications of drugs, chemicals, and kindred articles. Some of the important adulterations had been brought to the notice of the pharmaceutical meetings of the Philadelphia College of Pharmacy, and in several instances their fraudulent character exposed and their further sale materially affected. The report called especial attention to frauds in the sale of essential oils, although it was not always possible to prove the admixture by positive chemical tests. A New Jersey distiller had frankly admitted that all the commercial oils of cedar, hemlock, and spruce made by him and his acquaintances were prepared by putting the branches of the respective trees into the still, with an amount of turpentine proportioned to the price they expected to realize; and prided himself not a little on the superiority of these *distilled* oils over those made by mere admixture with turpentine. The major portion of the more expensive oils are consumed by bakers, confectioners, soap-makers, and bottlers of mineral or soda water, who have no means for testing them, and thus become easy victims to such swindles. The writer had on two occasions purchased cans of oil of lemon, one of which contained but 75 per cent. of oil, and the others scarcely 33 per cent. These adulterations were also becoming common in Europe. A gentleman who claimed to have formerly held responsible positions in two of the largest German houses, had shown him a full line of receipts for mixing and cheapening all the more prominent oils, which he was anxious to compound in this country. Some of the adulterations which are of public interest were musk, a caddy of which, weighing 19½ ounces, was proved in an English court to contain only 6½ ounces. French oil of almonds, stated on undoubted authority to be obtained exclusively from peach kernels; honey, made by melting cane or other sugar in a decoction of slippery-elm bark or a solution of gum and starch; linseed oil, adulterated with hemp, fish, rosin, and mineral oils; beeswax, consisting almost entirely of black earthy matter neatly coated with handsome yellow wax by repeatedly dipping it into the melted wax, and also adulterated with paraffine; castor-oil, composed of lard and croton oils, etc.

LEGISLATION AND THE CONSTITUTIONALITY OF THE PHARMACY LAWS.

On Wednesday afternoon, after extending an invitation to the medical men of Boston to attend the sessions, the Association listened to the report of Prof. John M. Maisch, on Legislation, the constitutionality of the pharmacy laws being chiefly discussed.

A question had been raised whether these were unconstitutional, but they had been sustained in the lower courts. The laws had been generally carried out satisfactorily, this being shown by the rejections, amounting frequently to more than twenty-five per cent. of those examined. In a portion of Canada a law was proposed, but withdrawn on account of the opposition of the medical profession. The pharmaceutists of the United States had been much annoyed by the stamp tax imposed under the revenue law, but a section of the "little tariff bill" had removed the difficulty. This stipulated that no tax should be imposed on any medicinal articles prepared by any manufacturing chemist, pharmacist, or druggist, in accordance with a formula published in any standard dispensatory or pharmacopœia in common use by physicians and apothecaries, or in any pharmaceutical journal issued by any incorporated college of pharmacy, when such formula and where found shall be distinctly referred to on the printed label attached to such article, and no proprietary interest is claimed therein; and that no stamp should be required when the formula of any medicinal preparation was printed on the label attached to such article and no proprietorship was claimed. These requirements, although a departure from the custom hitherto followed, would entail no hardship upon the pharmacist and druggist, and would enable him to keep on hand ready for delivery any legitimate medicine, without being ranked with the manufacturer of patent medicines.

THE EBERT PRIZE.

The Ebert Prize was awarded by the committee to Charles L. Mitchell, of Philadelphia, for an essay on "The Active Principles of the Officinal Veratrums."

REPORT OF THE COMMITTEE ON ELIXIRS.

The report of the Committee on Elixirs was then read by Wm. McIntyre, of Philadelphia. They were of opinion that such a nomenclature should be adhered to as would best express the remedial composition. A uniform simple elixir that would answer general purposes would meet all ordinary requirements, and serve as a guide to the physician. The tendency of the pharmacopœia was to present simple preparations, more thoroughly representing the drugs from which they were prepared. More attention was demanded, therefore, in the construction of extemporaneous formulas, and a thorough knowledge of the various spirits, syrups, and aromatic waters would give a wide field for the choice of auxiliaries, correctives, and vehicles. The report also presented a revised list of formulas. In the discussion that followed it was contended that some of these were defective; that some of those proposed last year were unsatisfactory; that the sense of the Association was adverse to elixirs, etc., and Mr. Baker, of Virginia, stated that formulas might be adopted but would be of little use unless physicians ordered them. For the purpose of interesting the medical profession in the matter, the Washington College of Pharmacy and the Medical Association of that city had co-operated. The formulas as reported were adopted.

Dr. A. W. Miller, of Philadelphia, then read the report of the Committee on Publication of Papers. A question having arisen whether authors should be allowed to publish their papers in medical or pharmaceutical journals in advance of their publication in the Association volume, it was

Resolved, That the various pharmaceutical and medical journals are cordially invited to publish whatever notes they may desire to make of our proceedings and of the scientific papers which are read before our meetings.

Resolved, That when authors of scientific papers have prepared copies or abstracts of their essays previous to the meeting of the Association, they shall be at liberty to distribute such copies or abstracts at any time subsequent to the official reading of their respective papers, provided that the paper is always headed in publication by the statement that it has been read at our meeting.

READY-MADE PILLS.

A report was made by Mr. Balluff, of New York, on "The Progress of Subscriptions to the Liebig Monument," after which Prof. Joseph K. Remington, of Philadelphia, offered, through Mr. Sanders, of Ontario, a paper on "Ready-made Pills of our Day," in which he replied to the query, "Can the form of the pill, the character of the coating, or injury during the coating by heating, interfere with its solubility?" and showed that the uncoated pill was, of course, the most soluble, and next in order the sugar-coated, the compressed, and the gelatine-coated. An essay was also read by Mr. B. F. Stacy, of Massachusetts, on "Paraffin and its Uses, and especially as a Substitute for Wax;" Prof. Babcock, describing a compound, called also paraffin, of lard-oil, and wax and paraffin mixed, which was employed as a substitute for lard; and Mr. Lemberger, of Pennsylvania, referring to the use of paraffin oil for producing a permanent base for ointments.

LEGIBLE WRITING IN PRESCRIPTIONS.

Mr. T. R. Baker, of Va., presented an extract from the minutes of the Richmond Pharmaceutical Association, Nov. 20, 1874, embracing resolutions to be presented to the Academy of Medicine of that city, urging the importance of writing prescriptions in a legible hand, without erasures or interlineations; of using the technical language and abbreviations of the Pharmacopœia and the United States Dispensatory; of writing directions for use and dose as a guide to the dispenser in case of error in quantity of any active ingredient; that when an unusual dose or quantity of a potent medicine is prescribed, the prescriber should affix a caution mark or sign to inform the dispenser the dose is unusual; that the words "not renewable" should be written on prescriptions which they did not desire to be renewed; also the importance of using every possible means to stop the sale of opium, morphia, and chloral, except upon competent medical authority. A similar communication was received from the delegation from the Philadelphia College of Pharmacy, and both papers were referred to a committee appointed by the chair.

On Thursday volunteer essays and answers to queries propounded at the previous annual meeting were presented. These consisted of an account of adulteration of granulated sugar with ground rice; an account of the various forms of drug-mills; an essay on mezquite gum for pharmaceutical purposes, and even as a substitute for gum arabic in its medicinal uses; and some important papers on phosphorus and its compounds, and the methods of administering them. Mr. Lewis Dohme, of Maryland, found by careful analysis that the commercial glacial phosphoric acid was contaminated with over fourteen per cent. of soda, the presence of which prevented the conversion of metaphosphoric and pyrophosphoric acid into tribasic acid.

NEW METHOD OF MAKING PHOSPHORIC ACID.

Prof. Markoe presented a new method of making phosphoric acid from phosphorus, nitric acid, water, bromine or hydrobromic acid, and a small quantity of iodine. A paper with conclusions similar to those of Mr. Dohme was offered by Prof. Jos. P. Remington, of Philadelphia. Prof. Markoe also read a paper on the manufacture of hydrobromic acid by the union of phosphorus and bromine in the presence of ice or ice-water. An essay on chloral-hydrate was read by T. Roberts Baker, Richmond. The writer stated it possessed powerful antiseptic properties, and numerous experiments showed it could be used to preserve anatomical preparations much better than any of the liquids heretofore used for that purpose.

MAXIMUM DOSES.

The report of the Committee on Maximum Doses was presented by the chairman, Dr. Wilson H. Pile, of Philadelphia. In view of the wide difference of views in regard to the quantities of potent remedies which could safely be administered, they had come to the conclusion that an arbitrary list of maximum doses made from such conflicting authorities would be of no practical utility. They therefore suggested that a committee be appointed to confer with the American Medical Association on the subject, as well as the proper signs to be adopted to designate the correctness of larger doses when intended by the physician. The recommendation was adopted.

PROGRESS OF PHARMACY.

The report on the progress of pharmacy was presented by the reporter, C. Louis Diehl, of Louisville, Ky. The report contained a more accurate and a fuller review of pharmaceutical and chemical literature than any previously made. The report was divided into five sections: First, pharmacy, under which head were comprised the various pharmaceutical papers. Second, Materia medica, which gave the results obtained during the year in the history of crude drugs and their botanical characters. Third, Inorganic chemistry, giving the results of investigations of inorganic substances. Fourth, Organic chemistry, giving the results of investigations upon the crude vegetable drugs during the year, with the progress in general organic chemistry. The report concluded with a review of the various works relating to these subjects during the year.

PAPERS ON VARIOUS SUBJECTS.

In the afternoon papers were read on the various forms of suppository moulds; on iron combinations, which were said to be only admixtures instead of definite saline compounds; on iodoform; spiritus ammoniæ aromaticus; chlorodyne, a new formula of which was suggested to be called officinally liquor chloroformi compositus; on artanthe elongata; on insect injuries to rhubarb; on pancreatine, which was said by Prof. Scheffer, of Louisville, to become destroyed on its entrance into the stomach, and therefore of no therapeutic value; on the danger of explosion from mixing nitric and carbolic acids; on the best tests for purity of chloral hydrate, the writer stating that hydrate of sodium yielded a better result than hydrate of calcium for separating the chloroform, and that formic acid was the most injurious contamination likely to be found; an excellent essay on the preparation of the bromides of the organic and inorganic bases used in American pharmacy, by Mr. Charles Bullock, of Philadelphia; a paper on scammony resin; on the various pharmaceutical preparations of calabar bean; on the alkaloids of cinchona; on the determination of the quinia strength in citrate of iron and quinia; and on the solubility of sulphate of morphia.

PATENT MEDICINES.

PROF. MAISCH spoke of the immense traffic in patent medicines. The Association professed to be opposed to the sale of these medicines. The efforts of pharmacists in this direction would amount to nothing so long as patent medicines were called for by the public. The question had been agitated what was the best means of informing the public of the dangerous nature of many of these nostrums. Dr. Frederick Hoffman, of New York, had suggested the publication of a health almanac, similar to those issued by the proprietors of patent medicines, which should contain analyses of such preparations. Circulars had been prepared upon this subject, which Mr. M. desired to have distributed to the Association.

On Friday morning, on motion of Prof. Sharples, of Boston, a committee of three was appointed to consider the subject of metric weights and measures. He stated that a similar resolution had been passed by most of the scientific bodies in the country. No profession was more deeply interested in the subject than the pharmaceutical, which had to deal with two varying systems of measures, mixing by one and selling by the other. The process of converting one measure into the other was very difficult, and not generally understood. All the trouble arising from this source would be obviated by the adoption of the metric system.

IMPURITIES IN SULPHURIC ACID.

Papers were presented on impurities in sulphuric ether and bicarbonate of sodium, by Prof. Bedford, of New York, the analysis of the latter giving the amount of carbonic acid, dried carbonate of sodium, and chlorides and sulphates present, although but a small amount of impurity was detected; on a new method of packing herbs; on cod-liver oil; on a new mode of administering medicines, between two layers of flour-paste disk; on a new process for making iodide of arsenic; on grindelia robusta; on spiritus ammoniæ; on dilute hydrocyanic acid; on the production of "rubber" from the common milk-weed, asclepias cornuti, etc., etc. We regret that space forbids us from making more than a passing allusion to some of these valuable papers.

Previous to the passage of resolutions of thanks to the Bostonians and the adjournment, which was to the second Tuesday of September, 1876, at Philadelphia, the interests of the Association was centred in a very important question of professional decorum, being no less than a charge of suspected illicit diploma selling.

On Thursday evening a conference of members of teaching colleges of pharmacy was held, at which the following action was taken:

"*Resolved*, That this conference communicate to the American Pharmaceutical Association that they are in possession of documentary evidence that the Tennessee College of Pharmacy was opened through its treasurer and acting secretary to examine candidates and graduate them, without their attending the customary courses, just the same as if they had attended all the lectures.

CHARLES A. TUFTS, President.
JOHN M. MAISCH, Sec. Conf. School of Phar."

On motion of Mr. Roberts, of Baltimore, the documentary evidence was produced and read. It consisted of a letter from Mr. B. S. Lillard, substantially the offer contained in the above.

PROF. BEDFORD, of New York, offered a resolution which was adopted, that a committee of three be appointed to communicate with the Tennessee College of Pharmacy and inquire whether such action was authorized by the college or was undertaken on the individual responsibility of Mr. Lillard.

MR. LILLARD seconded the motion and explained the action of the Tennessee College. The latter college conferred upon its graduates the degree of Doctor of Pharmacy. The other colleges conferred the degree of Graduate in Pharmacy. Persons who were already graduates of other colleges had applied to the Tennessee College for its degree, preferring the title of doctor to that of graduate. It was customary for colleges to recognize attendance upon courses of instruction in other colleges, and it was the intention of the Tennessee College, and the meaning of the letter which had been read, to signify a willingness to confer the degree of doctor upon graduates of other institutions without requiring attendance upon all the lectures. The degree would not be conferred without examination.

In connection with the meeting of the Association, a beautiful and costly display of pharmaceutical specimens, chemicals, druggists' sundries, etc., was made, which attracted very general attention.

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A NEW FOUNTAIN IN ST. LOUIS.—The King Brothers, of St. Louis, have erected in that city, for the benefit of the public, a drinking-fountain, capable of supplying three thousand gallons of iced water daily. The fountain is of marble, and is provided with ten faucets, which are each supplied with nickel-plated drinking-cups. A contemporary remarks that this is better than sumptuary laws and crusading against drinking saloons.

Reports of Hospitals.

ROOSEVELT HOSPITAL.

Notes of Practice and Items of Treatment.

DR. HEINEMAN, HOUSE-PHYSICIAN.

CHOLERA MORBUS.

Patients admitted with this disease have been uniformly treated by placing them in bed, and administering ipecac, opium, and cinnamon in small doses. The following is the prescription which has been commonly employed:

℞. Ipecac........................ gr. ½
Opium .... gr. ¼
Cinnamon .... gr. ½
M.

Such a dose is administered every four hours at first, and as the symptoms subside, once in eight. The ipecac, however, is gradually increased in quantity to one grain, one grain and a half, etc., until three-grain doses are reached. The intense thirst, which is quite common in this class of cases, is met with pellets of ice chiefly. Two patients were seen. One had passed about a pint of fresh blood early in the attack. Both were convalescing rapidly.

CROUPOUS PNEUMONIA—PHTHISIS.

This case illustrated how well some patients suffering from phthisis will sustain an attack of pneumonia.

A female patient, æt. thirty-six, who had a small cavity in the apex of her right lung, was attacked with a pneumonia which involved the lower lobe of the left lung. The acute disease had ceased advancing. Her pulse had ranged from 108 to 118, and the temperature from 99° to 101½° F. The treatment consisted in administering quinine, stimulants, and a liberal diet, and the patient was exceedingly comfortable.

CHRONIC DYSENTERY.

The dysenteric symptoms in this, and a number of other cases, had been effectually relieved by the use of thirty drops of the fluid extract of ergot three times a day.

Some cases of acute form of the disease, for instance, when the patient had had six or eight passages daily, had yielded promptly to the same plan of treatment. In both instances the patients were kept in bed.

GASTRIC ULCER.

A male patient was admitted who had unmistakable symptoms of this affection, and had been vomiting almost incessantly for more than a week. The only treatment he received was a tablespoonful of milk every hour. The vomiting at once began to subside, and with the subsidence the amount of milk was increased gradually to half a glass. The patient was feeling well again. The simplicity of the treatment was the noticeable feature.

DOUBLE PNEUMONIA.

There were some features in the following case which are perhaps worthy of note. A male patient, æt. thirty-four, and an habitual drunkard, had been on a spree a week or more, when he was seized with chills and was soon brought to the hospital. At the time of admission there were present evidences of general bronchitis and slight pneumonia. The bronchitis had gradually disappeared, and the pneumonia had continued to extend until it involved almost the entire left lung and the lower lobe of the right. His respiration was forty to the minute when admitted, but had subsided to thirty.

The characteristic expectoration of pneumonia has *not* been present, which is frequently the case in the pneumonia of drunkards. The pulse and temperature were worthy of note, especially in connection with so large an amount of lung consolidation. Upon admission the pulse was 124, and now, at the fifth day since admission, it numbered 108. The temperature had ranged from 99½° to 100¼° F., and at the fifth day stood at 100° F.

The patient, notwithstanding his habits, had had *wet cups* (3) applied over the sternum, with dry cups over the entire chest, posteriorly, and the abstraction of this small quantity of blood had been attended with good results. The treatment in other respects consisted in the use of six grains of the sulphate of quinine three times a day, an ounce of brandy every hour at first, and carbonate of ammonia. The patient looked very comfortable, and the indications were that he would recover, although the consolidation was quite extensive.

SURGICAL DIVISION.

DR. WENDOVER, HOUSE-SURGEON.

FRACTURE OF BOTH PATELLÆ—DOUBLE FRACTURE OF RIGHT PATELLA.

The fractures occurred as the result of sudden and violent muscular contraction. The man had slipped and brought unusual strain upon the left leg; the patellæ gave way, and in his efforts to save himself from falling brought his right leg to the rescue; but the undue exertion produced a double fracture of the patella of that limb, and his efforts at maintaining the erect posture ceased. He was a man of good habits, and apparently healthy, but previous to this group of accidents had suffered from fracture of the leg three times. The simplicity of the dressing was worthy of note, especially when the result obtained entered into the estimate. For the fractured edges of the left had been held in almost perfect coaptation, and of those of the right the edges of the lower fracture were closely in contact, while of the upper they were not separated more than three lines. The fractures were all transverse. The dressing consisted of two tabs, one carrying a buckle, which were secured by means of adhesive plaster, one upon the thigh and the other upon the leg. The limb was then placed upon a straight posterior splint, after which the fractured edges were approximated, a small, firm roller placed above and below the patella, and then secured by means of the tabs first applied to the limb.

HEMORRHOIDS.

In this case the hemorrhoidal tumors had been removed according to Allingham's method, which consists in first cutting through the tissues at the base of the tumor down to the vessels, and then applying a ligature. The cure was complete.

SCROTAL HYDROCELE—RADICAL CURE.

The patient who was the subject of this affection had been treated by puncture and injections of iodine, but without effecting a permanent cure. The house-surgeon, therefore, made a free incision into the sac, broke up some of the adhesions with the finger, which had probably been produced by former treatment, and irritated the inner surface of the cavity quite smartly. Considerable inflammatory action followed, but this soon subsided and a radical cure was effected.

BURNS.

A male patient had been burned over the head and face with kerosene oil. The dressing employed in this case, a favorite with the visiting surgeon, consists of:

℞ Acid tannic.................... ʒ ij.
Lotio plumbi cum opio......... ℈i.
M.

This is applied by wetting strips of lint or muslin in the mixture and laying them upon the burned surface; and is regarded as a very nice dressing when there is a discharge. The burns in this case were not deep, the discharge had ceased, and the sores were being dressed with oxide of zinc ointment.

PERITONITIS—HYPODERMIC INJECTIONS.

As soon as symptoms of peritonitis were developed the administration of opium was commenced; but the respiration of the patient remained unaffected although the pain was overcome. No symptoms of narcotism manifested themselves; but, on the contrary, the patient was quickly aroused by the most trifling disturbance. Hypodermic injections of morphine were substituted for the aqueous extract of opium, the preparation that had been previously employed in the treatment of the case, and the effect was to reduce the respiration from thirty to sixteen to the minute within twelve hours. The hypodermics were discontinued, and the extract again employed, but the respiration increased in frequency until the injections were again resorted to. The patient recovered.

GONORRHŒA—PERINEAL ABSCESS—SYMPTOMS OF PYÆMIA.

The special interest in this case was found in the plan of treatment. The patient had an attack of gonorrhœa. In the progress of the case a swelling was noticed in the perineal region, which was opened, and a free discharge of pus obtained. Not long after the patient was seized with chills, his temperature arose, profuse sweating followed, and this train of symptoms was also accompanied by other evidences of grave constitutional disturbance. The treatment consisted in use of a pure tonic stimulant, and nourishing course; but more special stress was laid upon the use of *morphine* in such doses as to allay all irritation. The patient was kept under the gentle, steady, quieting influence of the drug. This plan was regarded by the visiting surgeon with much greater favor than depending upon *quinine*, as is not infrequently done to a very great extent. The patient recovered.

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Cholera in Syria and Turkey.—*The British Medical Journal*, of August 21st, says that by the latest advices received from Syria, it appears that the number of cases of cholera in Damascus and Antioch are on the decrease. At Damascus, from the 20th to the 26th of July, there were six hundred and eighty cases, and five hundred and thirty-one deaths; and at Antioch, from the 19th to the 26th, there were one hundred and eighty-six cases, and one hundred and fourteen deaths. The cholera, it is stated, of the sporadic form, has appeared at Aleppo, where, from the 19th to the 26th of July, thirty-nine cases occurred, with twenty deaths. A correspondent in Constantinople writes that the Christian population of the city are becoming greatly alarmed. For some time past the necessity for sanitary reforms have been urged upon the municipal authorities, but they are utterly apathetic, and the city remains in just the same state that it was ten years ago, when the disease invaded the city and swept off the inhabitants at the rate of two thousand a day.

Progress of Medical Science.

Schroeder on Drainage of Douglas's Cul-de-sac in Ovariotomy.—At the session of the Physico-Medical Society of Erlangen, held May 10, 1875, Professor Schroeder made some statements on what he declared to be one of the most important questions in operative gynæcology, viz., the drainage of Douglas's cul-de-sac in ovariotomy.* He said that after Peaslee had first recommended draining off the exudation from the abdominal cavity as the most efficient method of treatment in cases of peritonitis, Sims seized this idea, and came to the conclusion that Douglas's cul-de-sac had best be punctured and kept open in every ovariotomy, certainly in all in which a peritoneal exudation was to be expected on account of already existing peritoneal irritation or of extensive adhesions. The train of thought which Sims followed was, he said, essentially as follows: He assumes, and bases his assumption upon a series of fatal cases taken from Spencer Wells's operations, that the great majority of those dying after ovariotomy succumb to septicæmia, and that this is caused by an exudation which accumulates in the abdominal cavity, and undergoes decomposition into an ichorous fluid. Thus he arrives at the conclusion that the chief aim of a rational system of treatment must be to remove this exudation from the abdominal cavity, but that this can only be done easily and simply when the necessary precautions are taken during the operation. Very many in Germany have assented to these deductions, which Sims has advanced with the persuasive mastery of statement which is peculiar to him. Nussbaum especially adopts this idea with enthusiasm, and anticipates from it a new curative measure in ovariotomy, and Spiegelberg is also warmly in favor of it. I see, he says, in these views an essential danger for ovariotomy, and cannot recognize the correctness of Sims's deduction. For agreeing as I do with Sims, that most of those operated on succumb to septicæmia, I still cannot concede that the reddish serous exudation plays the dreadful part that Sims ascribes to it; for daily experience teaches us that transudations and exudations in the abdominal cavity have in themselves no tendency to decomposition and the production of septic states. In fact, I have frequently satisfied myself that, even after ovariotomies, the exudation is not the bugbear that Sims considers it. I have three times operated under circumstances where an exudation into the abdominal cavity might certainly be expected, without the occurrence of the least trace of a septic process. In the first case I operated where an exudative peritonitis already existed. After the operation the meteorism and vomiting persisted for a few days, but soon improved, and recovery ensued without any disturbance. In the other two cases, to be sure, death occurred, but only after twelve and fifteen days respectively, and from a complication, viz., tetanus, which was not in any degree dependent upon septic processes in the abdominal cavity. In the first of these cases the whole anterior surface of the tumor had contracted adhesions to the abdominal wall, so that the recognition of the peritoneum and the separation of the tumor from it presented great difficulties. From the extensive surfaces of cicatricial adhesion an exudation would necessarily take place. In spite of this, there was perfect healing of the abdominal wound; there was no trace of peritoneal irritation, and when death, occurring on the ninth day, furnished the opportunity for an autopsy, the abdominal cavity was found perfectly healthy, and there was no suspicion of a decomposing exudation. In the last case the adhesions were not so extensive as they were firm, and could only be separated with great difficulty. Here there existed a reddish, serous transudation in the abdominal cavity, which constantly reaccumulated even during the operation, and a part of which had to be left in the abdominal cavity. The patient had hardly the least sensitiveness, very little fever, and was perfectly well after eight days. She had a normal temperature and a strong appetite, in fact showed no septic phenomena at all, death also ensuing from tetanus as before, but on the fifteenth day. Small fibrinous flocculi were, it is true, found in the abominal cavity upon the intestines, also in a few places small deposits of pus, which could easily be scraped off with the blade of the knife, and in the true pelvis there was a reddish, serous fluid. Notwithstanding, there were no septic phenomena, and she would undoubtedly have recovered had the calamitous tetanus not appeared as an intercurrent disease. Now, how does it happen that in one case an exudation undoubtedly present occasions no disturbances whatever, does not even perhaps furnish slight symptoms of peritonitis, while at another time, with a very slight operation, involving scarcely any injury of the peritoneum, there are associated the most violent symptoms of septic peritonitis? According to my conviction, this difference depends wholly upon whether infection has or has not taken place. In its absence the exudation is perfectly harmless, and is easily absorbed by the peritoneum without irritation; should it occur, however, the exudation becomes decomposed, or where there was no exudation, a violent peritonitis sets in, which furnishes a rapidly decomposing exudation. If this view be correct, it is evident that our treatment must be directed not to the accumulating secretion, but to the prevention of the infection from which the whole trouble arises. Now, although in spite of all our experiments on vibriones, we still do not know precisely in what the infective substance consists, I am, nevertheless, certain that it is conveyed from without, and that its conveyance is as a rule by the hands, the instruments, or other appliances of the operator and his assistants. If, therefore, we wish to ward off the infective substances, we must operate in healthy places, and must attend most carefully to the absolute cleanliness of our hands, linen, clothing, instruments, sponges, etc.: also, in order to disinfect as far as possible the air which forces its way into the abdomen, it is desirable to operate under the spray of carbolic acid, as is my custom in every case. If with such painstaking exactitude we guard against infection, the exudations do not decompose, and consequently give rise to no septic phenomena. Under these circumstances, then, drainage is unnecessary, and if unnecessary, ought to be omitted, as in any event it makes the operation more complicated, difficult, longer, and more dangerous. I should therefore decide upon drainage during the operation only in case I believed—a state of things which of course should not happen—that the patient had become infected, or in case decomposing masses, from some suppurating cyst, *e.g.*, had found their way into the abdominal cavity. Drainage of the abdominal cavity assumes a very different position as a therapeutic measure against a septic peritonitis which already exists. For, although the exudation be neither the original cause nor the only symptom of the septic condition, it must still be conceded that its removal is highly desirable. It is true this is then difficult to accomplish. Douglas's cul-de-sac is easy to puncture only when an exudation is enclosed in it. Then only does a tumor form behind the uterus, which is easy to get at. It is precisely in these cases, however, that its evacuation is not absolutely demanded, for the exudation being encapsulated is rendered harmless, and does not lead to absorption or perforation. If, however, there is a free exudation in the abdominal cavity, it does not bulge forward in Douglas's cul-de-sac. It is then difficult and dangerous to puncture for fear of injuring the neighboring parts. The need of it is felt with especial frequency in puerperal peritonitis. But here the neck of the anteverted uterus lies so close to the rectum that we do not know where to make the puncture. In such cases we might think of removing the exudation by incision of the abdominal walls. The abdominal cavity, however, cannot be satisfactorily washed out through a simple incision in the abdominal walls. So the only efficient procedure seems to me, in such cases, is to perform laparotomy, and then to perforate and establish drainage through Douglas's cul-de-sac from within. Perhaps this will yet become the treatment for septic peritonitis, although it requires great confidence to undertake this operation in a woman suffering from general peritonitis. In conclusion, let me once more state my views precisely, that the exudation after ovariotomy is not in itself the cause of the septicæmia, but is, on the contrary, perfectly harmless, unless it decomposes; but that decomposition only occurs after infection, and that consequently the important point is not the removal of the exudation, but the avoidance of infection.

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* This note was intended for the article on Ovariotomy in the American Edition of Ziemssen's Cyclopædia of the Practice of Medicine, vol. x. It did not, however, reach New York in season to be printed in that volume.

THE SUBCUTANEOUS INJECTION OF CARBOLIC ACID AS AN ANÆSTHETIC AND ANTI-NEURALGIC.—Attracted by the published views of Prof. Hueter, Dr. Hermann Schulz began the use of carbolic acid as a subcutaneous injection, aiming at an antiphlogistic and anæsthetic effect. He has now used it in some forty cases. He uses a two-per-cent. solution of the purest carbolic acid in distilled water, and injects with a Pravaz syringe, which is filled quite full and is to be used from half full to twice full at one time, and repeated after some six or eight hours, if necessary, without regard to the presence or absence of fever. Out of over two hundred injections he has seen an abscess form but once, when the tissues had been lacerated by the sudden movement of a child's head during the little operation. He has had no experience in the use of parenchymatous injections. The results which he reports of his experience with the subcutaneous injections are by no means uniform. He has used them in cases of chronic inflammation, caries, and eczema, and found them inefficient; in some acute cases he had more favorable results, as in enlargements of the glands of the neck accompanying scarlatina and diphtheria; in a phlegmonous inflammation following dacryocystitis; in otitis externa and myringitis, and in one case of catarrhal conjunctivitis, though they failed in a second similar case. His use of this treatment in pneumonia does not wholly confirm the favorable opinion of Hagen. It had no marked influence upon the general course of the disease, but did effect a very prompt and marked relief of the pleuritic pain, and also of the cough, even when cups and sinapisms had proved ineffectual. The injections had to be repeated sometimes at the end of from four to eight hours. He regards this as a very important adjunct in the treatment of pneumonia. From his experience in the treatment of some seven contusions, of intercostal neuralgia, periostitis of the jaw, hemicrania, and supraorbital neuralgia by these injections, he found that they generally produced early, and often permanent and complete relief of the pain, sometimes stopping the accompanying inflammatory process. Thus he believes that as an anæsthetic and anti-neuralgic remedy these injections may very often be advantageously substituted for narcotics.—*Allg. Med. Cent. Zeit.*, July 31 and Aug. 4, 1875.

Hysterical Seizure in a Man treated and Cured by Compression of the Testicles.—The following case, reported by Dr. Foet, has an interesting analogy to the method of treatment of hysterical seizures in the female practised by Charcot, viz., compression of the ovaries. (*Vide* Medical Record, June 19, 1875). A man was found apparently in an apoplexy. The mouth was half open, without frothing, the eyelids half closed, the head turned to the left. The respiration was slightly blowing, somewhat quickened, the belly distended, the pulse small. The patient, who was unconscious, occasionally made a movement with his hand to his neck, as if something choked him. The skin was insensible; but while they were attempting to examine the play of the pupils the face suddenly became distorted, the neck swollen, he ground his teeth, and his arms and legs became violently convulsed. Foet now pressed the testicles together, and in less than a minute the seizure had passed. The patient's mind remained confused for about an hour; then he stated that he sometimes suffered from a boring pain in the left temple, and that shortly before he became unconscious he had been attacked with a fit of incessant gaping. The velum palati and uvula were completely anæsthetic. The next day the patient was again at work. Dr. Geissler asks, pertinently enough, what led the reporter to think of the peculiar manipulation which was followed by relief? Was the cessation of the seizure merely accidentally simultaneous with the pressure on the testicles?—*Gaz Hebd.*, 2 sér. 50, 1874.—*Schmidt's Jahrb.*, July 15, 1875.

Tuberculosis treated by Inhalations of Nitrogen.—Dr. Steinbrück sets forth the following as the results of his experience in the treatment of chronic tuberculosis of the lungs by inhalations of nitrogen gas. In the first stage the disease is cured with positive certainty by systematic inhalations, if the cure is used long enough. He does not know whether relapses occur. In the second stage improvement and cures are attained to an extent hitherto impossible. The younger the patient the better is the withdrawal of oxygen borne, and the more certain is the result. In the third stage the inhalations are dangerous. All beneficial treatment of tuberculosis must depend upon quieting of the nervous system. The inhalations are practised in an air-tight cabinet, under the supervision of the physician, and the effects looked for are easier and deeper breathing, with coughing up at first of muco-purulent matter. Subsequently the cough should stop, the pulse and temperature fall, and the nervous system be calmed. Under these circumstances a cure is expected to follow. If these signs of improvement do not show themselves, Steinbrück regards it as useless to continue these inhalations, and resorts to stronger ones. With a larger proportion of nitrogen in the cabinet the patient, after a period of great restlessness, suddenly falls in a faint. He is then put to bed, and after a long sleep sometimes awakes with a great amelioration of symptoms, and sometimes the improvement only shows itself later. These are followed by increase of appetite, improved digestion, and gain in weight after a few weeks. The details of a number of cases are added.—*Allg. Med. Cent. Zeit.*, Aug. 7, 1875.

Two Cases of Rapid Malignant Syphilis.—Dr. E. Guibout reports that he has seen two cases in which syphilitic rupia was accompanied by continuous fever, great weakness, prostration, serious functional disturbances, and extensive ulceration—all within six weeks of the primary lesion. Moreover, none of the ordinary lighter syphilides had intervened. In the first case, that of a miserable anæmic woman, the rapid and unfavorable course of the disease was easily referred to her bad condition and circumstances, the chancres receiving no treatment until some three weeks after infection, and having become phagedænic at the end of two weeks. The second case, however, was that of a strong and healthy man, whose chancres received early and appropriate treatment, and the reporter could furnish no satisfactory explanation of its bad progress. The excessive discharge of ill-conditioned pus, the pain and irritation from friction and movement, these, with loss of sleep and the offensive smell, aggravated the bad features of the cases. At the end of two months, however, under tonic treatment and careful attention to cleanliness, supplemented by specific remedies, the first case was doing well, and the second was cured.—*L'Union*, 61, 62, 1875.—*Schmidt's Jahrbb.*, July 15, 1875.

A Danger from the Use of Chiccory in Coffee.—M. J. Clouët, Professor of Toxicology in the School of Medicine at Rouen, reports the following case: A family, consisting of five persons, were one morning, after having partaken of a light repast of coffee and milk, suddenly attacked with lassitude, headache, a sense of constriction in the throat, and all the food taken during the day had a disagreeable taste. These symptoms increased for several days, and the nights were troubled with unpleasant dreams. Still, nothing wrong in the diet was suspected, although one member of the family, who was in the habit of not taking coffee in the morning, had remained unaffected. But on the fourth day the symptoms became more serious. Soon after breakfast the persons affected began to suffer from vertigo, extreme lassitude, and feebleness; the sense of touch became so impaired that in carrying anything in the hand it was necessary to grasp the object very firmly to avoid dropping it, and the women were unable to sew. Vision also was so impaired that it was impossible to read; the pupils were markedly dilated. Alarmed by these symptoms, suspicion was at length fixed upon the morning coffee; but the coffee itself having been carefully roasted and ground in the house, the suspicion was directed to the chiccory-root with which it was mingled in cooking. A fresh supply of chiccory was obtained, and the symptoms disappeared. The suspected root was sent to Clouët for examination, who subjected it to very thorough tests. By chemical examination the presence of an alkaloid was discovered, which distinctly presented all the reactions of *hyoscyamine*. Moreover, through a microscopical examination, certain peculiarities of structure were found in portions of the suspected specimen of chiccory, which were quite unlike anything appearing in pure specimens; but, on the other hand, corresponded precisely to the microscopic appearances found in the root of hyoscyamus.

The supposition was that in cultivating the chiccory a few plants of the henbane had been overlooked, and that their roots were gathered with those of the chiccory. If this be true, it is well to bear in mind the possibility of other such accidents occurring.—*Le Mouvement Médical*, Aug. 7, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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THE MEDICAL TREATMENT OF CONVICTS.

THE publicity which has lately been given to the case of the convict Connolly, who was so cruelly beaten by the keepers of the Penitentiary, at Blackwell's Island, and the charge brought against Dr. Lenihan for neglect of duty in not attending to the patient as he should have done, will present the question of hospital management in a new light to the Commissioners of Charities and Corrections. The whole story, as told before the Coroner's jury, reveals a laxity of discipline in the care of the sick, which, were it intentional, we should say was exceedingly culpable. That such a state of affairs should exist with a management which is intelligent, painstaking, and conscientious, is strange, to say the least; but that the responsibility of any wrong-doing connected with this case should be shifted upon the shoulders of the unfortunate interne, either by direct charges or by implication, militates somewhat against our notions of ordinary fair play.

It appears that the physician in charge of the Penitentiary patients was summoned in the regular way to see Connolly in his cell. He responded to the call, examined him, and prescribed accordingly, leaving directions with the orderly that in case the patient was not better on the morrow to report the fact. The following day the convict was ordered to work by his keeper, and took his place in the gang. Being, as it appears, physically unable to perform his duties, he was beaten by those who were his overseers, and either as the result of the said beating, or of the progress of the chronic intracranial disease, or possibly of both combined, he was next reported, at the end of three days, in a dying condition in his cell. The physician was then duly summoned, when he found the patient past all hope of recovery.

The case naturally became one for the coroner, and the examination was conducted with all that sensational display which was calculated to appeal to the public sympathy. The Commissioners were forced to take official notice of the matter, and very properly ordered an investigation on their own account. The keepers were placed under arrest in advance of any such action, and there seems to be no question in the minds of all acquainted with the facts that these men exceeded their functions as overseers, and merited not only prompt expulsion, but more positive punishment besides. So far, that part of the evil may be said to have been properly met.

The least that apparently could be done with the young doctor was a vote of censure by the Coroner's jury, and upon this hinged the investigation of his case by the Board of Commissioners, and this is the matter which concerns us more particularly in regard to the question under discussion. The Commissioners sent a request to the Medical Board of Charity Hospital to examine into the charges brought against the doctor, and report accordingly. At a meeting of the Medical Board, convened for the purpose, a committee, consisting of Drs. Walter R. Gillette, H. G. Piffard, and W. M. Chamberlain, was appointed to examine all the circumstances connected with the affair.

The result of this examination was, not only the exculpation of Dr. Lenihan, but a commendation for unusual attention to the prisoner, and resting the blame upon the overseers for not keeping him properly informed of the condition of the patient, in accordance with the directions. This report of the committee was unanimously adopted by the Medical Board, and afterwards sent to the Commissioners. It does not appear that the latter were inclined to be satisfied with the action taken by the medical staff, and indulged in some comments which were far from flattering to the intentions of the committee. The assertion by this committee that the convict received unusual attention was construed, by a strain at facetiousness, into sarcasm, and the question asked as to what constituted the usual care of such patients. To any one not acquainted with the fact of prison management at Blackwell's Island, these comments would seem to be fair criticism; but it is just to Dr. Lenihan to state that, in view of the surrounding circumstances, he did all that could have been expected of him, and was in no way to blame for the results. The fault rested entirely with the established method of prescribing for patients from the Penitentiary, and the extraordinary discretionary powers which the Commissioners seem willing to rest with the keepers. The physician has in reality no fair opportunity to perform his conscientious duty to these patients if the keeper chooses to interfere. The rule of the prison is, that the doctor shall attend to answer the sick call in the morning, and prescribe for such as are reported to him by the keepers. No record is kept of the case, which, it is true, is a fact to be deplored; but one which is excusable, considering the lack of the ordinary facilities for making such records. Under existing rules, and in accordance with the custom sanctioned by years of precedence, the physician has no occasion to see any patient unless asked to do so by the keeper. Having done so, it is understood that his responsibility with the patient ends until the next summons from the keeper. Any attempt to keep a continuous charge of the patient is at the risk of an unpleasant conflict with the authority of the keeper, who is seldom if ever backward in openly ignoring the doctor's injunctions. In the exercise of the latter function the keeper is apparently supported by the prison authorities, any complaints of the doctor being considered of so trivial importance as not to require notice.

Now it seems to us that the time has come for the Commissioners to decide upon this question of authority, and give the physician a reasonable chance of doing justice to those who may be in need of his services. If that Board desire more than the usual care given to sick convicts on the part of the medical attendant, they should be ready to draw the line between his authority and that of the keeper; in a word, that the latter should have no right to exercise any discretionary power so long as a patient is under medical treatment. It is to be hoped that the medical board will take the opportunity, which this unfortunate case affords, of forcing such a necessity upon the authorities that be, if for no other reason than that the interne may not be held responsible for the acts of others over whom he now has no control.

A suggestion worthy of consideration in this connection has reference to the practicability of having a regular salaried physician attached to the Penitentiary, as is the case with other prisons, who should be vested with all the authority which usually belongs to that office.

THE PHARMACEUTISTS IN COUNCIL.

THE assembling of so large and respectable a body of educated men as has recently gathered in Boston, for purposes of practical improvement and mutual advancement, is worthy of more than a mere passing comment. So nearly allied are medicine and pharmacy that whatever interests or affects the one must of necessity cast a halo or a shadow around the other. We have frequently seen pharmacy quoted as the handmaiden of medicine, but there is something more of interdependence than such a relation of implied subserviency would indicate, and we are quite sure that the educated pharmaceutist feels that he now occupies a position in which his knowledge of the refinements of his art entitles him to a more elevated degree of prominence and consideration. Times are changed since the days of the Capulets, and a "beggarly account of empty boxes, green earthen pots, bladders, and musty seeds, remnants of packthread, and old cakes of roses," would hardly be a fair inventory of his stock in trade at the present day, when ornate and elaborate finish, and a dazzling display of showy bottles of cheap and costly perfumery, delicate articles of toilet adornment, gorgeous fountains of marble, patent medicines of dubious efficacy, cigars of domestic and foreign manufacture, etc., etc., supplement, without displacing, the more reliable and substantial preparations of the Pharmacopœia. A few centuries ago the labors of the apothecary must have been herculean; no easy task could it have been to compound the senseless farragoes that were prescribed by the credulous physicians of those benighted times. Much as may be sometimes expected at his hands from some of the polypharmacal-prescription writers of these more enlightened days, we may well imagine the greater disgust that would be experienced by the modern pharmaceutist, if, like his ancient predecessor, he should be called upon to prepare mixtures embracing a score of such incongruous articles as characterized the recipes of those dark ages, when roots of a dozen kinds, goat's horns and brains, powdered bones of various birds and quadrupeds, pulverized gold and silver, animal excrement, etc., were heterogeneously commingled.

The attractive feature of these modern State and national pharmaceutical gatherings to all lovers of progress is the exhibition of a united effort towards refinement and a fair degree of perfection in education in the practical details of business, in the preparation of medicines, in the simplification of processes of manufacture and manipulation. It is to our interest, as medical men, to give them greeting in all their associate deliberations, and to wish them happy results in all their well-directed plans; for is not a great portion of their success in such fields of culture reflected upon the whole medical profession? We have one criticism, however, to make upon the modern nomenclature of the apothecary's science and art. It might admit of question whether or not the term "pharmacist"—literally, from its derivation (*φαρμακος*, a "poison" or a "medicine") a poisoner or a medical man, not necessarily a dispenser of poison or of medicine—is a desirable substitute for the respectable, and, from its antiquity, venerable name of "apothecary;" but we must unqualifiedly condemn the employment of the term "pharmacy," to designate both "the art of preparing, preserving, and compounding substances for the purposes of medicine," and the shop in which the labor is accomplished. The latter use of the word, although so employed in French, is manifestly a philological error.

* * *

A NEW PROCESS FOR STAINING TISSUES.—Mrs. Frances Elizabeth Hoggan, of London, says that the following process is chiefly of value because of the property it possesses of retaining the substance of the cell, as well as the nucleus and nucleolus, and because it gives the best results where the carminate of ammonia fails. It consists in first pouring over the specimen (after treating it with water and with methylated spirit) a one-per-cent. solution of perchloride of iron, and, in a few minutes afterwards, a few drops of two-per-cent. solution of pyrogallic acid—both solutions being made in distilled water.

Reviews and Notices of Books.

The Protoplasmic Theory of Life. By John Drysdale, M.D., Edinburgh, F.R.M.S. London: Baillière, Tindall & Cox, 20 King William Street, Charing Cross.

This little volume, we are told by the author, was prepared for a work entitled, "Life and the Equivalence of Force," in which he designed to represent "certain views on the nature of life and other physiological questions contained in the partly posthumous works of Dr. John Fletcher." No claim is made to discoveries, and the opinions of writers are given in the form of extracts or full analyses. The special theory maintained in this book is, "that every action properly called vital, throughout the vegetable and animal kingdoms, results solely from the changes occurring in a structureless, semifluid, nitrogenous matter, now called protoplasm."

The author first discusses the theories of life now in vogue, giving the material and the immaterial ones at some length. Dr. John Fletcher is credited with being virtually the propounder of the protoplasmic theory, in his "Rudiments of Physiology," published in 1835. The various stages through which the cell-theory has passed are reviewed, from the time Schwann applied the term *cell* to animal life until 1854, when Max Schultze showed that the nucleus was not essential to the cell.

Hugo von Mohl is said to have been the first to use the term protoplasm. He applied it to vegetable cells; but Cohn, in 1854, showed that it was the equivalent in animal life of the sarcode of cells. Beale's protoplasmic theory of 1860 was, that "in the earliest visible speck of germ, up to the last moment of life in every living plant, animal, or protist, the attribute of life is restricted to one anatomical element alone, and this is homogeneous and structureless, while all the rest is merely passive and lifeless-formed material." This protoplasm is what Beale at first called *germinal matter*, and later *bioplasm*, it being the same in significance as *bioplasson*, a term recently proposed, *plasson* being said by Haekel to be more correct than *plasm*.

This discovery was due, we are told, to the use of carmine, which stains the protoplasm, but leaves the other parts unaffected. That carmine, however, can be said to differentiate thus closely, would, we think, now be denied by most histologists.

The author devotes a good deal of space to anatomical questions, and it is easy to see that he is a faithful follower of Beale, though he feels himself compelled to state that that author's views have not always met with favor either in England or in other-countries. In discussing the application of this protoplasmic theory to nerve and muscles, we observe that Beale takes distinct issue with those who believe that nerves have terminal organs. Later, however, his statements are modified so that he admits such bodies exist in the lizard and the chameleon, though he says the nerve-fibres really pass through them and end in loops. What becomes of the loops we are not told. In these as well as in other points, where he takes distinct issue with other histologists, he is exceedingly apt to neglect telling us on what reasons he bases his views. The last chapters in the book are devoted to the "Nature of Life," the "Connection of Force with Life," "Materialism," etc. He discusses the theories of Spencer, Bastian, and others, but avows that modern science has yet failed to disprove that the world was created. Between that which is living and non-living there is no easy gradation, but a great gulf. The author shows that he has had the literature of the subject at his command, though his practical acquaintance with the doctrines is probably limited. Those who are interested in the recent changes that have been made in these theories will find the book well worth reading.

Correspondence.

"UNSUCCESSFUL PRACTITIONERS."

To the Editor of The Medical Record.

Mr. Editor:—In the struggle for existence somebody is always getting pushed to the wall. It always has been so, and doubtless will always continue to be so. Some of these unfortunates drop out of the crush quietly; others signify their discomfiture by loud wails and lamentations, like your correspondent "Diploma." It matters little in what particular line this struggle has been, whether literature, science, art, trade, commerce, or manufacture, the burden of the wail of unsuccessful men is nearly always the same, viz., *that* particular calling is too crowded, and the great public too unappreciative; and those who have attained success have stumbled upon it, fallen into it, or been conducted to it by the wealth and influence of others. Unsuccessful men have ever modestly disclaimed any responsibility for their own failures.

Such being the case—and I believe you will concede the truth of my statements—I should not have taken upon myself to criticise the letter of your correspondent, did you not in your editorial upon the subject allude to it as "a very interesting, instructive, and suggestive letter," vouch for "the facts which he presents," favor holding the medical colleges to an accountability for overcrowding the profession, and inquire if "in the confusion of struggling multitudes, is there an even chance that the truly meritorious one will always succeed?"

Now, Mr. Editor, I am in no way personally connected with any of the medical colleges, nor interested in them save as institutions which have the training of our young men, and thus give character to our profession. On this account alone I cannot calmly bear to have them maligned.

Furthermore, I have always believed that honest and intelligent perseverance in *any legitimate* business will certainly bring success, unavoidable accidents alone excepted, of course. I believe it none the less firmly since reading "Diploma's" letter.

In the first place, *Is* the profession overcrowded? "Diploma" proves it to his own satisfaction, both by statistics and by his own experience. But then, anything can be proved by statistics or by personal experience. Personal experience has time and again proved conclusively the existence of ghosts and hobgoblins, has time and again proved insurmountable obstacles in the path to success, yet the great mass of mankind still doubt the existence of the former, and are quite unmindful of the latter. Success still comes to those who work for it, none the less than it did fifty or one hundred years ago.

That now and then a man fails to succeed in the practice of medicine proves nothing as to the vocation being overcrowded. For one, I do not believe in this alleged overcrowding, but, on the contrary, maintain that the profession offers excellent promise of a livelihood and more, to young men of perseverance and ability.

I do not say that they will obtain it in the way which your correspondent has pursued. Upon his own showing, I think the responsibility for his failure can rest upon no one but himself. He had the best of advantages, and by all natural laws should have won in the battle for existence. But, with all the advantage which culture could give, on one occasion he was worsted by "a pair of pestilent, vulgar, and ill-educated quacks." Tell me of what advantage would it be to him to have the standard of medical education raised, when even the ill-educated quack has more *moral* control over patients than he?

Men have time and again tried vainly to legislate quackery out of existence—it is simply impossible. The educated physician has to compete with the ignorant and vulgar, always has had to, and probably always will, but who doubts the final issue? To argue anything but ultimate success, is to argue that the course of civilization is backward. So "Diploma's" few instances of successful ignorance may go for nothing. If I were disposed, I might cite numerous instances of honorable, intelligent, scientific men, who have attained success unaided during the time which "Diploma" has occupied in floundering, and, I fear, grumbling. In fact, "Diploma's" letter will be read by hundreds of men who will smile at what contradicts the lesson of their lives.

I believe as implicitly as "Diploma," or any one else, that the standard of medical education should be elevated, but not for his reasons. I do not believe that any course of study, either at Bellevue or in Germany, or anywhere else, can guarantee success to any man. Medical colleges may prepare a man for his battle, and the better they prepare him the better fight he may make if he will, but his success is always his own. It may be hastened or detained by wealth and influence; but without either, if he have the energy of a full manhood, he may attain it. I believe that the law of supply and demand alone can regulate the number of men who shall practise medicine, and that medical colleges are just as subservient to that law as individuals, and have no more control over it than individuals. Then let them do their work. Encourage them to elevate their standard for the public good, and not attempt it for private gain.

Jeremiahs will wail, but the world moves, and meritorious men will still succeed in the future as they have succeeded in the past.

I do not believe the professors of our colleges to be the men whom "Diploma" alleges. That many of them are honorable, high-toned men, I know; and the imputation that they graduate men merely for the money's sake is as base as it is groundless.

To sum up, then, "Diploma" is a disappointed man. He graduated at a first-class literary college, then at Bellevue—served eighteen months in hospital—went abroad for a year—returned—wrote articles for the papers, on which he was "complimented by many of the older members of the profession," etc., etc.—made a humiliating failure of his life—tells us all about it—and falls out of our ranks blaming everybody but himself, and warning everybody to beware of his example.

I will take up his warning, and admonish every young man studying medicine, about to study it, or just commencing to practise it, to beware of his example. Beware of his failure, and make your success certain. Do not rest with the knowledge that you have an education "much more extensive than that usually enjoyed by students," and therefore think that you must succeed; but remember that with all his erudition he made a failure, while less trained men, by untiring energy and honest endeavor, have elevated themselves to places of honor and emolument.

Success.

To the Editor of The Medical Record.

Dear Sir:—To enter into the medical profession with brilliant hopes, given by good and thorough education, with much enthusiasm, patience, and perseverance, the whole backed up by a few thousand dollars, and meet with the disappointments that "Diploma" has had in practice, you must admit is more than sufficient to excuse his long letter with its series of complaints. He may console himself in thinking that he is not probably the only one whose hopes have been thus deceived, as no doubt the number of physicians exceeds by a great amount the requirements of our population. But if such is the case, he may ask, What is he to do? Medicine he likes; study he enjoys; and he hates to give up the medical profession, for which he has already done so much. I will say to him, then, there is a sister branch of medicine which is almost entirely overlooked in this country—which counts but very few amongst its regular members—whose interest is not less than the one he belongs to—whose scientific connections are equal to it—whose influences are no less beneficial (though in a different point of view), and whose financial rewards will, I have no doubt, be satisfactory to the most sanguine; in other words, let "Diploma" and his like unfortunate confrères give attention to Comparative Medicine, to *Veterinary Medicine;* let him become a scientific, graduated veterinarian, and I feel certain that in a very short time he will write you a different letter from that which was published in the last number of The Record.

Yours truly,
M. D. V. S.

DIEULAFOY'S ASPIRATOR IN LITHOTRIPSY.

To the Editor of The Medical Record.

Sir:—Among the many examples given by Dieulafoy, where his method of pneumatic aspiration has been brought into requisition, he does not make mention, in his book published in 1873, of its having been employed as an adjuvant to lithotripsy. It has seemed to me that his valuable instrument, which is now in the hands of the great majority of surgeons, might be so employed with advantage, and replace the rubber "washing-bottle," of Clover, and thus diminish by one the already too numerous appliances in the surgical arsenal.

Having recently had an opportunity to demonstrate the excellence of this aspirator in the operation alluded to above, I have the honor, through your columns, to report the result to the profession, in order that the procedure may be further tested.

A few weeks ago I had occasion to perform lithotripsy upon an old man, suffering also from prostatic hypertrophy, who had for two years been compelled to rely almost entirely upon the catheter to void his urine. Immediately after the first sitting I proceeded to remove the fragments by first attaching to the end of a No. 12 evacuating silver catheter an india-rubber tube, two feet long, which led from one of the stopcocks of Dieulafoy's inclined rack-and-pinion aspirator. A single aspiration sufficed to abstract nearly all the detritus, and the whole process did not occupy two minutes' time. Owing to clogging of the rather small-bored tube, a second aspiration could not have been made without too much delay. To obviate this, I have since added to the apparatus a glass cylinder, so constructed as to receive the detritus and prevent its being forced either into the barrel of the aspirator or back into the bladder.

I believe that aspiration of calculous débris can be made much more safely and expeditiously by this means than by Clover's apparatus, and that it is especially applicable in cases where the prostate is so enlarged as to prevent the spontaneous expulsion of fragments or of small foreign bodies which may have eluded the lithotriptor or other instruments for their extraction.

Very respectfully yours,
J. W. S. Gouley, M.D.

311 Madison Avenue, New York, *August* 27, 1875.

GYNÆCOLOGY IN VIENNA.

To the Editor of The Medical Record.

During the three months that I have spent in Vienna a good opportunity has been afforded me to see the large general hospital here, and the mode of conducting it, especially the departments of Midwifery and Gynæcology. I have thought a short notice of the latter might prove acceptable to the readers of The Record, which I send you, together with the subjoined answers of Professor Gustav Braun to a series of questions propounded by Carl Derby, through the British embassy at Vienna, relating to the schools of midwifery in the Austrian empire, and intended for the use of the House of Commons, a duplicate copy of which Prof. B. has kindly furnished me.

In the first place, I would state that the general hospital of Vienna has three thousand and five hundred beds, which are divided and proportioned to the several departments of the University for clinical teaching, the arrangement differing in some particulars only from similar institutions of other countries.

The departments of Midwifery and Gynæcology, which alone receive from eight to ten thousand patients annually, and to which I now invite attention, differ more perhaps than the others in their details. For example, there are three of them, each having about one hundred and eighty beds—two for physicians and students, and one for midwives. To the former there are proportioned about thirty beds each, for the diseases of women are connected with the lying-in period. Prof. Carl von Braun is at the head of one of these, and Prof. Joseph Spaeth, at the other. At the head of the third is Prof. Gustav Braun, brother of the first-named, to whom I am under many obligations for his invitation to attend his lectures, and for the general information embodied in these remarsk concerning the school of midwifery, of which he is in charge, with his able assistants, Drs. E. Welponer and C. Paulik.

Suffice it to say, my opportunities for seeing the workings of this department were most favorable, being allowed to enter the wards with the assistants at all hours of the day. Students from other departments are not admitted here, and visiting physicians only through invitation of the professor.

In the Austrian empire there are twelve schools for physicians, and twenty-six for midwives, fourteen of the latter being in Upper, and twelve in Lower Austria. The three principal schools of midwifery, however, are at Vienna, Prag, and Pesth.

From this statement it will be readily seen how much importance has been attached here to the teaching and training of midwives, which is now only beginning, it seems, to awaken an interest in countries other than those of continental Europe, where the system for so long a time has been more or less in vogue.

I found Prof. Braun's lectures most interesting, divested as they were of all technicalities, and brought within the comprehension even of the most unlettered of his class, which numbered about fifty. A large proportion of these women possessed more than ordinary intelligence, judging from their prompt answers to questions by the professor, and from the skill displayed by them while on duty in the critical wards, where there are from eight to ten deliveries daily.

Prof. B. makes his round daily at nine o'clock, and disposes of all critical cases that may have presented themselves during the night. It is not unusual to see three instrumental cases at this visit. I have seen him apply the forceps quite often, and he certainly does it with great dexterity, using generally Simpson's pattern, with a slight modification of the blades.

The great majority of these operations, however, are performed by the two assistants, whose experience, for young men, is something enormous.

After leaving the critical ward patients remain only two days, when they are discharged, excepting cases of course where there is some special complication, which are transferred to the ward set apart for them.

The rule in all cases is to give a dose of castor-oil on the third day. Peritonitis and perimetritis are treated usually with digitalis, quinine, salicine, and morphine injections, varied according to circumstances. Over the abdomen are laid cloths wrung out of water of the temperature of the room, and changed every half hour. For tympanites collodion is spread over the abdomen, to which Prof. B. attaches much importance from the compression thus afforded. In reply to a question of mine regarding the use of tinct. verat. virid., he said he seldom employed it, owing to its liability to disturb the bowels.

Prof. Braun informed me that he had met with only one case of rupture of the uterus within three years, and this one was not, properly speaking, of his service, having been admitted after the accident had occurred. He has within this period met with no accident of vesco-vaginal fistule, and only with very few of complete rupture of the perinæum. Superficial rupture is quite common, for which only two or three serre-fines are employed. The practice here in nearly all forceps cases is to make lateral incisions of the vulva, one to two inches on either side of the *fourchette*.

In conclusion, now, I have only to say that the Vienna School of Midwifery furnishes, according to my judgment, a most excellent model of organization and usefulness, and I earnestly recommend it to the notice of the profession. For many years I have myself been thoroughly convinced of the great necessity of such institutions in our own country, as a means tending to lessen the accidents of parturition, which I have so often been called upon to witness, as a result of the ignorance of our so-called midwives, both as regards the mechanism of labor and the peculiar circumstances demanding the presence of a physician; and equally long have I wondered why some of our medical institutions possessing clinical advantages have not taken the lead in organizing schools for this worthy object, so essential to the well-being of society in every community. Owing to the vast extent of many of our States and Territories, and the sparseness of the population in many portions of the same, it would seem that the importance of the subject would be seen and felt everywhere. With one or two intelligent and properly trained midwives, in full accord with the physician of every neighborhood, who dare say that many valuable lives might not thereby be saved, and an incredible amount of suffering avoided? I can myself recall cases of frightful accidents presented to my notice for treatment, which could thus have been prevented, and, I dare say, other gynæcological surgeons can do the same thing.

I will briefly state that the other two departments, under the direction of Professors C. Braun and Spaeth, for physicians, are conducted in a similar manner to the above as regards midwifery, the difference being mainly in the gynæcological feature, which is also employed for clinical teaching. What strikes one in this connection as a little singular, is the smallness of the accommodations for diseases of women in a hospital so large. Prof. Carl Braun holds the first rank in the empire as gynæcologist, and controls a very large practice, but he performs comparatively few of the capital operations, so to speak, in his branch. Nearly all of his cases of ovarian tumor, and many of vesico-vaginal fistule, he transfers to Prof. Billroth, the able Professor of Surgery of the University.

With regard to vesico-vaginal fistule, I found here comparatively little advance in its successful treatment, excepting through the doubtful expediency of kolpokleisis, recommended by Prof. Simon, of Heidelberg.

All operators here in this disease, so far as I can learn, as well as those throughout Germany, are his strict followers in this expedient, and perform it in a very large proportion of their cases. Even the few imitators in Germany of Sims, find it necessary also in a considerable number of their cases to resort to kolpokleisis.

This I consider a very interesting fact in connection with the treatment of vesico-vaginal fistule, and affords an admirable clue to the range of applicability of these two methods, as compared with my own.

My great object in visiting Germany has been to study this operation of kolpokleisis, and see, if possible, the advantages of it, so highly extolled by Prof. Simon. The results of my observations upon the subject so far are most interesting, based upon the experience of leading surgeons.

Through the kindness and liberality of Prof. Simon I had the opportunity last fall of testing with him, in the hospital, in a practical way, the applicability of our respective operations, in the face of obstacles regarded by him as insurmountable, excepting by his expedient of kolpokleisis.

In Vienna three similar cases have been presented to me for operation by Prof. Carl Braun, admitting only, according to his view, of kolpokleisis, and a fourth, thought by him to be incurable by any known method, owing to the complication of a large recto-vaginal fistule, situated twelve centimetres from the anus. Suffice it to say for the present, that in all of these cases I adhered to *my standard of cure*, namely, *the co-aptation of the fistulous edges and preservation of all the functions of the organs involved.*

I hope soon to present my views upon this subject in a more extended form, and as the question at issue relates to the partial or complete unsexing of thirty per cent., at least, of all sufferers from vesico-vaginal fistule, its importance, in a practical point of view, I conceive, cannot be overestimated, and well deserves the serious attention of the profession at large.

The following are Prof. Braun's answers to the questions of Carl Derby already referred to:

"Every woman who wishes to enter the School of Midwifery in the Imperial-Royal University in Vienna, must be able to read and write German correctly, and to cipher, and for this purpose she must undergo an examination for admission before the Professor.

"Married or unmarried women may be admitted, provided they are not more than forty-five years old (unmarried women must be twenty-four years old). In exceptional cases the Superior Department of Instruction permits younger single women to enter.

"The instruction is given at the clinic in the lying-in-hospital, where a University professor and two assistants are employed.

"The course of instruction is as follows:

"*a.* Systematic lecture of an hour's duration is delivered daily by one of the professors. The scholars are first shown the general anatomy of the human body, with especial regard to the female genital organs and the pelvis; then the organs in the pregnant state are shown; afterwards the attention is directed to the normal birth and child bed, and, finally, the pathological conditions are demonstrated. At each stage of the instruction the scholars are shown in which cases and at what time the aid of a physician is to be summoned.

"*b.* A course in which the lectures of the Professor are repeated by the assistants in turn. Each course lasts half a term, and five florins extra are paid therefor, while the instruction by the Professor is free. This course is not obligatory.

"*c.* The pupils are obliged to accompany the assistants in their visits to the lying-in rooms, where the separate cases are demonstrated, especially those in which the help of a physician is needed on account of illness.

"*d.* The scholars must assist at a certain number of births (at least ten), either in the presence of the Professor, the assistants, or the head midwife. When they are proficient they are allowed to take charge independently of special cases (always normal)."

It may be here remarked that in Austria in no case is a midwife allowed to use instruments, and she may only use manual help in the most urgent cases when it is impossible to procure the services of a physician.

"The course for midwives lasts from the first of October to the end of February, and from the first of March to the end of July. August and September are holiday months.

"During this time the scholars in classes must live in the institution, changing every eight days, making themselves generally useful.

"At the completion of the course the pupils must pass an examination before the Professor. If this be satisfactory they receive a certificate, by which they are admitted to the 'Strict Examination' (Rigorosum).

"The 'Strict Examination' is made by the Professor, the Dean of the Faculty, and a commissioner (who is a professional man), appointed by the government.

"This examination is absolutely necessary in order to obtain a diploma, and the fee therefor (without any exception) is twenty-eight florins and thirty kreutzer, Austrian currency.

"After the 'Strict Examination' is successfully passed, the midwives must take the oath prescribed by the Minister of Worship and Education—line 6938, March 6, 1874.

"In regard to the testimony of the midwives, their duties, and the punishment which they may undergo, see Instructions for Midwives, which were proclaimed by the Imperial-Royal Department of the Interior, March 25, 1875."

Very respectfully,

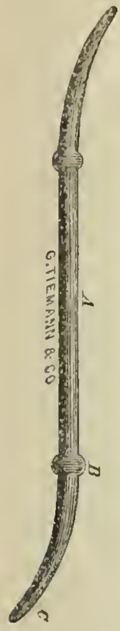
VIENNA, *July*, 1875. NATHAN BOZEMAN.

New Instruments.

NEW DILATORS FOR THE CERVICAL CANAL, OR FEMALE URETHRA.

By H. T. HANKS, M.D.,

NEW YORK.



Five hard rubber rods, each about nine inches in length, constitute the set of dilators. Each rod consists of the body "*A*," five inches in length, and about one-fourth inch in diameter, as represented in the accompanying cut, separated by the shoulder "*B*" from the extremity "*C*," which is about two inches in length, and is the dilator proper. These extremities are rounded and curved, similar to Dr. Peaslee's metal dilators. The two dilators, one at each end of the rod, are curved, for convenience, in opposite directions. They are graduated in size, and numbered according to the American scale of bougies adopted by Van Buren & Keyes, and range from nine to eighteen inclusive.

The advantages claimed for these dilators are as follows:

(1.) They are exceedingly light.

(2.) They are easily kept clean, and will not rust like metal.

(3.) They are readily bent when heated.

(4.) They are more easily manipulated when in position and any version of the canal is indicated by the curve outside.

(5.) The rods marked 9 and 10, and 11 and 12, make excellent cotton-holders.

(6.) The rods being numbered renders it convenient to record the size of the canal.

(7.) The expense is but little more than half that of the metal dilators.

New York, *Aug.* 1, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Sept. 11th, 1875, to Sept. 18th, 1875.

Milhau, J. J., Surgeon.—Relieved from duty at Willett's Point, New York Harbor, and granted leave of absence for six months. S. O. 183, c. s., A. G. O., Sept. 11, 1875.

Smith, A. K., Surgeon.—Relieved from duty in Dep't of the Missouri, and assigned to duty at Willett's Point, New York Harbor. S. O. 183, c. s., A. G. O., Sept. 11, 1875.

Heger, Anthony, Surgeon.—Relieved from duty in Dep't of Dakota, and assigned to duty at Willett's Point, New York Harbor. S. O. 182, A. G. O., Sept. 9, 1875.

Heger, Anthony, Surgeon.—By S. O. 177, Hdqrs. Dep't of Dakota, Sept. 13, 1875, upon being relieved from duty by Surgeon Byrne, will comply with the requirements of S. O. 182, c. s., from War Dep't, relieving him from duty in Dep't of Dakota.

Byrne, C. C., Surgeon.—By S. O. 177, Hdqrs. Dep't of Dakota, Sept. 13, 1875, relieved from duty at Fort A. Lincoln, D. T., and assigned to duty at Fort Snelling, Minn.; relieving Surgeon Heger, U. S. A.

Brooke, John, Assistant Surgeon.—To report in person to the Comd'g General, Dep't of the South, for assignment to duty. S. O. 182, c. s., A. G. O., Sept. 9, 1875.

Brooke, John, Assistant Surgeon.—By S. O. 132, Hdqrs. Dep't of the South, Sept. 13, 1875, to report to the Commanding Officer, Raleigh, N. C., for duty at that post.

Monroe, F. Le B., Assistant Surgeon.—Relieved from duty in Dep't of the South, to report to the President Army Medical Board, New York City, for examination for promotion, and upon its completion to the Commanding General, Dep't of Dakota, for assignment to duty. S. O. 182, c. s., A. G. O., Sept. 9, 1875.

Byrne, C. B., Assistant Surgeon.—Relieved from duty at Willett's Point, New York Harbor, to report to the President Army Medical Board, New York City, for examination for promotion, and upon its completion to the Commanding General, Dep't of Texas, for assignment to duty. S. O. 182, c. s., A. G. O., Sept. 9, 1875.

Harvey, P. F., Assistant Surgeon.—By S. O. 182, Hdqrs. Military Division of the Atlantic, granted leave of absence for one month, on surgeon's certificate of disability.

NAVY.

September 14.

Northfleet, Assistant Surgeon.—Detached from special duty connected with the Darien Survey and ordered to the *Gettysburg.*

September 19,

Brush, George R., Surgeon, late of the *Saranac.*—Ordered to the Naval Hospital, Mare Island, Cal.

Fitzsimmons Paul, Surgeon.—Detached from the Naval Hospital at Mare Island, Cal., and ordered to the Naval Hospital at New York.

The "Bastie" Glass.—In order to correct the numerous incorrect statements that are being made concerning this new glass the *Chemical Review* says:—

1. The glass is not malleable, and is not claimed to be so by its inventor.

2. It is not unbreakable, though it is much tougher than common glass, and will bear a much stronger impact.

3. It is not annealed. It is only tempered, toughened, or hardened by its submersion in a hot oily bath.

4. It cannot be cut or engraved like ordinary glass. Flint and other glass can be cut and ground on the wheel, or by the sand-blast, throughout its entire thickness. Now, though a few specimens exhibited were ground by the sand-blast to a very slight depth, yet, if the blast goes beyond a certain depth, it will break into a thousand pieces, just as a Rupert's drop is shivered when ground.

5. It does not preserve its transparency after its transformation by tempering, as most of the specimens exhibited were only translucent. The glass is thus robbed of one of its chief beauties, rendering it unfit for any use where clearness and transparency are required.

6. The glass cannot be cut with a diamond, making it of little or no value for window-glass or photographic uses, both of which purposes frequently require the pieces to be cut more than once before exactly fitting the frame or the window-sash.

Medical Items and News.

A STATE MEDICAL SOCIETY IN ARKANSAS.—*The Daily Gazette*, published at Little Rock, Ark., on the 9th inst. contained the following notice, signed by two hundred and six of the leading physicians of the State:

"Experience has demonstrated conclusively that wisely conducted Medical Association inures to the development and growth of medical science. We, therefore, the undersigned, graduates in medicine, actuated by a desire to bury all the animosities engendered by the errors of the organization of 1870, and to avoid all occasion in the future for discord, and influenced solely by that which we consider as most vital to the wants and interests of the profession in this State, do cordially invite all other medical graduates of Arkansas, whose diplomas emanate from colleges recognized by the American Medical Association, to meet us in Mass Convention, at Little Rock, on Tuesday, October 12, 1875, for the purpose of organizing a Medical Society for the State of Arkansas. County Societies favorable to the objects contemplated by the Convention are solicited to co-operate by delegates selected for that purpose, in the proportion of one delegate to every five members. The representatives of County Societies will assume no priority in the Convention by virtue of their delegated authority, as it is intended that each physician present shall have an equal voice with all others in forming the organic law, and in organizing a State Medical Society in accordance therewith."

CATHETERISM OF THE URETERS.—Prof. Simon, of Heidelberg, the advocate of passing the hand into the rectum and colon, for the purpose of diagnosis, proposes a method equally bold in investigating affections of the ureters and kidneys.

In No. 88 of *Volkmann's Sammlung*, after describing the circumstances under which it is desirable to dilate the female urethra (so that the finger may be carried in and the bladder explored), and to perform the vesico-vaginal section, he states that this latter operation may be taken advantage of for catheterizing the ureters. He has himself done this seventeen times on eleven women, and has been enabled without the slightest difficulty to reach the pelvis of the kidney. As yet he has had no opportunity of employing this procedure in a case of disease, but believes it will be found useful in the diagnosis and treatment of calculous affections; calculi in obstructed passages might be extracted or cut out, and so forth.

THE NEW BUILDING OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—In THE MEDICAL RECORD of May 29th we mentioned the commencement of the new building which the Medical Department of the University of the City of New York have found necessary to erect in order to accommodate their increasing classes and their needs for giving instruction. The work has now been completed, and on Monday evening, the 13th inst., the faculty received the friends of the school and showed the rooms and the appliances for teaching.

The new building is situated on Twenty-sixth street, directly opposite the entrance to the grounds of Bellevue Hospital, and covers an area of sixty by one hundred feet. It consists of four stories and a basement, which are arranged in the following manner:

Through the centre of the first story a broad, marble-floored hall runs the entire length of the building. At the further end of it an imposing staircase leads to the level of the third floor, and furnishes the entrance for students to the lecture-room. On either side of the hall are rooms for the Dean of the Faculty; for the examination of patients who attend the college clinics: for the janitor and his family; for the museum, and also a sitting-room for students.

On the second floor are a number of private rooms for the different professors, but the greater part of this story is occupied by the lecture amphitheatre, which is at the back of the building, and reaches from the floor of the second to the ceiling of the third stories. It is provided with iron opera-chairs, arranged in semicircles, and having backs and seats of narrow strips of hard wood. The seats are made to tilt up out of the way when unoccupied, and will accommodate about three hundred and fifty listeners. A laboratory for illustrating chemical and physiological lectures is in the rear of the lecturer's desk, and to either side of it, and opening into the lecture-room, are waiting-rooms for professors and patients, the latter having a supplementary room for physical diagnosis. Under the ranges of seats are rooms for undressing and anæsthetizing patients, and where they can be cared for after operations until they are in condition to be removed.

The third, or half-story, contains additional rooms for the faculty, and a large working laboratory for chemical and physiological classes, to which is attached a room for work, which requires the exclusion of sunlight.

The dissecting-room occupies the greater part of the fourth, or upper floor, and is well supplied with all the conveniences essential to the comforts of those who may be studying practical anatomy. In the rear of this dissecting-room are the laboratories of the professors of Toxicology and of Diseases of the Skin.

Occupying fully one-third of this floor is the private laboratory of the professor of Physiology and Pathology, like which, for completeness, we have nothing in this country and but few abroad. Besides a private hallway and an office, separate rooms are provided for electro-galvanoscopy; for spectroscopy; for physiological chemistry; for fine glass apparatus and scales; for reduction of organic and other bodies, and for gas generators; for photography; for the care and observation of animals, and for microscopic work. The completeness of the appointments of the building throughout won the unqualified admiration of the large company of physicians who were present, many of whom have still a vivid recollection of what medical schools were in the days when the professor sat at his desk and read, not always in an audible manner, his lecture from the pages of a well-worn manuscript. When, aside from the simple experiments of the lecture on chemistry, and the passing around of a few dubious-looking drugs by the professor of materia medica, almost nothing was attempted in the way of illustration, and but little, if any, more in the field of clinical instruction.

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WEEKLY BULLETIN OF THE MEETINGS OF MEDICAL SOCIETIES.

Monday, Sept. 27th.—Med. Soc. of the Co. of N.Y.. Nomination of officers.

Tuesday, Sept. 28th.—Adjourned Annual Meeting of the Alumni Association of Bellevue Hosp. Med. Col., at the rooms of the Academy of Medicine.

Friday, Oct. 1st.—Medical Library and Journal Assoc. (first meeting of the season).

Monday, Oct. 4th.—N. Y. Neurological Society, College of Phys. and Surg., cor. 23d st. and Fourth av.

Thursday, Oct. 7.—N. Y. Academy of Medicine, 12 W. 31st st.

Friday, Oct 8.—N. Y. Medical Library and Journal Assoc., 107 E. 28th st.

Original Communications.

REMARKS
ON ARTIFICIAL RESPIRATION.
SUGGESTED BY TWO IMPORTANT CASES LATELY PUBLISHED.

By BEVERLEY ROBINSON, M.D.,
SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPARTMENT OF THE THROAT), ETC., ETC.

No one doubts the usefulness of artificial respiration as a means of restoring consciousness in cases of asphyxia. Numerous instances of new-born children in an almost inanimate condition, of individuals who have nearly perished by drowning, or in consequence of the absorption of noxious vapors, and who are thus brought back, as it were, to life and health, sufficiently demonstrate its efficacy.

Owing, however, to a want of accurate limitations in regard to the manner of performing it, and of knowledge with respect to the exact conditions when it is imperatively needed, its use has hitherto been too much restricted. Indeed few practitioners have employed it in the treatment of other asphyxic states than those resulting from the causes above mentioned.

Within a brief period, however, in our city, attention has been directed towards it in an unusual degree. In the April number (1875) of the *New York Medical Journal*, two cases—one an example of accidental poisoning with aconite, the other with laudanum—are graphically portrayed by Dr. John Ellis Blake. In both instances respiration was continued by artificial means; and in one—thanks in great measure to the laudable and persistent efforts of the medical gentlemen in attendance—a remarkable recovery of the patient followed their use. In the case now referred to (poisoning with aconite) "respiration could only be excited and kept up by artificial means for some hours, of which means the galvanic current was the chief, the all-important one," and the patient is stated to have been "without any trace of pulse for a period of over three hours."

Are cases of "accident or emergency" the only ones where artificial respiration may be put in requisition as a means of cure when life is imminently menaced? Evidently not, for several instances of acute disease (pneumonia, diphtheria, etc.,) are already on record in which death was apparently close at hand, and where, by the introduction of air into the lungs, a rapid change for the better has ensued.

On one occasion simple atmospheric air was employed; on another, air was mingled with a large proportion of oxygen gas.

And no further back than July 17th, do we find registered in the *London Medical Times and Gazette*, "a recovery by artificial respiration after tracheotomy in a case of diphtheritic croup."

In the case reported by Dr. Richardson, the double-acting bellows was put in requisition by the inventor at a period when the child had "ceased to breathe altgether, and to common observation appeared to be dead." Certainly the interest pertaining to the *histories* quoted, and the intrinsic importance of the *subject*, will render a few remarks on them and it *not* out of place at this time. The means employed to stimulate arrested respiration may be divided into—1. Ordinary, viz.: inhalation of some pungent vapor, external friction or castigation, tickling of the fauces, hot-baths, sinapisms, bleeding, etc. 2. Exceptional, viz.: insufflators, or bellows of different sorts; the galvanic current, one of two methods known as Marshall Hall's "ready method" and Dr. Silvester's "method."

Those in the first division are in too familiar use to merit any remarks. Marshall Hall's "ready method" and Dr. Silvester's method are to be ranked among the common property of the profession, and the manner of conducting them is known, at least in theory, to all of its members. They are much too recommendable to be thrown completely aside as yet, and have often done good service in the cause of humanity; and of truth it would seem as if the mere gentle rolling of the body, stretched at length in the facial decubitus, from this position to either side with rhythmic regularity, and back again to its original situation, could scarcely produce either the rupture of lung or vascular tissue.

As much may be said of Dr. Silvester's method, where the expansion and falling back of the chest-walls is effected by raising up the arms in a flexed position and then successively and with pressure approaching them to the sides of the thorax.

One objection has been urged to the *general* adoption of one or other of these methods, even while their great and signal benefits in a large number of instances have been widely recognized.

It is affirmed that they interfere with the movements of the heart, and Dr. Benjamin W. Richardson notably expresses himself in the following terms: "I find by experiment that when the heart is brought down to a very feeble action, from suspension of the respiratory power, the slightest thoracic pressure is sufficient to arrest action altogether (*Medical Times and Gazette*, December 4th, 1869). Surely such an assertion, coming from so distinguished an authority, should make us chary of these or analogous methods of restoring suspended animation (*vide* "Speedy Method" in Asphyxia, THE (New York) MEDICAL RECORD, July 31st, 1875) in cases where the action of the heart is very weak or apparently stopped. And even in instances where the pulse is still readily perceptible at the wrist, and the heart-sounds only somewhat diminished in force, we cannot exercise too much care in avoiding to put undue weight upon the parietes of the chest. Besides, by so doing would we not show ignorance of a physiological fact already well known to all?

Lung tissue contains elastic fibres, and the action of these is sufficient, even though death has supervened, to enable the walls of the alveoli to come back upon themselves, and to drive out a portion at least of the residual air contained in them.

The action of the heart, as well as that of the lungs, may also be completely abolished by the employment of the galvanic current, unless it be very sagaciously applied.

For let us consider a moment what is the usual way of using it in those instances where it would appear to be imperatively called for. One electrode is put on the side of the neck, and the other in the epigastric region, near the costal insertions of the diaphragm.

They are placed, we perceive, so as to bring the stimulating action of electricity as nearly and directly as possible upon the nerve-trunks and plexus which hold the respiratory function under their control. Now in the lateral cervical region the grand sympathetic and pneumogastric are situated, and also the branches of the cervical and dorsal spinal nerve (including the phrenic), which animate especially the inspiratory and expiratory muscles. Beneath the anterior insertions of the diaphragm lies the solar plexus, which receives branches, as we are aware, from all the following nerves, viz., the vagus, sympathetic, and phrenic.

What does modern physiology teach us in this connection?

If we stimulate *gently* the trunk of the pneumogastric, or the intact cardiac nerves of the sympathetic, the heart's action is increased, its movements are accelerated. If, on the contrary, the stimulation of either of these nerves is too energetic, the inevitable consequence is that the heart-beats become slower, and in diminishing in number they lose their energy, and to that point oftentimes that they stop altogether.

An energetic stimulation of these same nerve-trunks, will likewise occasion stoppage of the respiration. These facts are explained by the assertion that the action of the nerves referred to, when *gently* stimulated, may be considered as being direct or centrifugal. The action of these same nerves, when it is obtained by energetic stimulation, is complicated with phenomena which are due to reflex action, viz., to an action which takes place in the centripetal direction, reverberates violently upon the nervous centres, and occasions phenomena of characteristic depression.

In one of the cases reported by Dr. Blake, "the current was very strong, strong enough at each application to twist the neck and body to one side, yet it utterly *failed* at one time, during the first hour, to excite respiratory action." After what we have said of our physiological teachings, one of the evident causes of the *failure*, is readily found in a more than sufficient use at the time mentioned of the galvanic current.

The obvious deduction from what we have written is, that *the galvanic current, when put in requisition in cases of suspended respiration, should be used with a feeble current, and that a powerful current can but prove in a certain measure injurious, and may become fatal.* There remain to be considered by us certain conditions which attach themselves to insufflation of the lungs.

This may be accomplished by placing our mouth directly over that of the patient, and endeavoring to dilate his chest by breathing air into it. It is a method which, though occasionally successful, is not an agreeable one to the attending physician, and for this reason we deem it more advisable to use an insufflator. This instrument may be introduced into the larynx through the mouth, and inflation of the lungs can thus be performed with tolerable success.

Unfortunately the employment of the insufflator is open to the serious objection of blowing air rendered impure by an excess of carbonic acid and organic particles into the patient's lungs. The double-acting elastic hand-bellows appears to us therefore to be an advantageous substitute for the insufflator.

It is more bulky, however, and cannot be carried as *our* insufflator can, in the pocket-case of the practitioner The (New York) Medical Record, April 3, 1875).

On the other hand, if we make use of the "bellows," the amount of air insufflated in a given period of time, may always be approximatively known, and the supply of fluid to make it efficient, can *always* be drawn from the atmosphere. Besides, by referring to the description of Richardson's apparatus (*Medical Times and Gazette*, December 9, 1869), we shall perceive that it is possible to get rid of the residual effete air which would otherwise remain in part in the pulmonary alveoli.

In the first case reported by Dr. Blake, we are satisfied, upon careful perusal, that the employment of oxygen incorporated with atmospheric air has been of very great value.

We would suggest, however, that in another analogous instance where it would be well to make a trial of it, the proportionate amounts of air and gas might be regulated in such a way as to make the experiments more *accurate*, and in this manner of greater practical utility to those physicians who desire to test its efficacy.

This may be readily accomplished by attaching a piece of india-rubber tube to either nozzle of a cylinder containing oxygen or atmospheric air, under an equal degree of pressure.

The further ends of the two tubes should be made into one, so as to fit on Richardson's bellows. If we pursue this plan, bellows and cylinders could be easily connected, and by turning the stopcocks of the cylinders to a given point, a determined quantity of fluid would be permitted to escape from each cylinder into the bellows. The bellows may then be pressed after the customary manner.

Due precaution is of course to be exercised so as not to force too large a volume of this mixed fluid into the lungs during a given time, nor is too great pressure ever to be used. Great moderation in both particulars must be shown, otherwise bad results may quickly follow, among which generalized vesicular emphysema of lung, or even rupture of vascular walls, are not to be lost sight of. The insufflations should not be continued too long, and so soon as there is evidence of returning contractility in the voluntary respiratory muscles, they may be intermitted, and only resumed when necessity demands it.

37 West Thirty-fifth Street.

REPORT OF A CASE OF RECURRENT TUMOR OF THE NECK,

WITH SOME REMARKS ON THE ELECTROLYTIC TREATMENT OF TUMORS.

By E. T. COMEGYS, A.M., M.D.,

ASSISTANT SURGEON, U.S.A.

C. C., æt. 31, American, merchant, states that about five years ago he first noticed a small tumor in the left side of his neck, just behind the angle of the jaw. There exists no family history of cancer or of any kind of tumor. The tumor, diagnosticated a fibroid, was removed, partly by the knife and partly by caustics. About a year afterwards the tumor recurred, about two inches below its first site, and was removed with caustics. Two years after this it again recurred, this time at the root of the neck, and was removed by the same means (the patient being for the last two times under the treatment of a "cancer-cure doctor"). About two years after this the tumor (still diagnosticated a fibroid) reappeared just over the clavicle, and the patient came under the treatment of a homœopathist, who attempted to dissipate it by electrolysis, using the interrupted current. Up to this time the tumors had all been small (none larger than a walnut). At the beginning of the electrolytic treatment, this one was about the size of a hazel-nut, and freely movable under the skin. This treatment was continued for about three months, during which time the tumor steadily increased in size, invaded the bone, and ulcerated around the points of insertion of the needles. The patient, being dissatisfied, now consulted a regular physician, who, diagnosticating it a recurrent fibroid, determined to excise it, and kindly invited me to assist him in the operation and after-treatment.

The prominent points in the previous history of these tumors are: *recurrence after removal, very slow growth, absence of pain, absence of enlarged blood-vessels around the growth, and absence of cachexia.* Even at this time the only symptoms of malignancy which it presented were recurrence after removal and (only after the use of electricity) occasional pains in the shoulder.

The growth was excised, together with three inches of the clavicle, to which it was firmly attached. It was unfortunately thrown away before a piece for examination under the microscope could be obtained. It reappeared in about three weeks, at the end of the outer part of the clavicle, and was again excised, this time with the rest of the bone. Erysipelas developed in the arm a few days afterwards, followed by abscesses, the discharge from which finally exhausted the patient, and he died about four months after the last operation. An examination of the tumor under the microscope (after its last removal) showed a fibrous stroma, with a few of what Dr. J. J. Woodward, U.S.A., calls the small brood cancer-cells.

In connection with the treatment of this case two questions arise for consideration. 1st. What is the relative value of electrolysis in the treatment of tumors? and, 2d, May not its use, from the irritation it produces, convert a benign into a malignant growth?

1. There are very few reported cases in which electrolysis has been used, and the results vary very much. Althaus speaks of fifty-eight cases, eleven of which were malignant and forty seven non-malignant. Of the non-malignant ones there were twenty-seven cures (all small tumors and principally sebaceous ones); ten improved, and in seven (the largest of all) no result. Of the malignant ones two were successes and nine not. Mr. Callender, of London, reports several cases in which sloughing of the tumor was produced, and increased growth after the use of electricity was stopped. These are, of course, not all of the reported cases, but the others are so similar that it is unnecessary to mention them. The results of these cases show that electrolysis has only removed a few small, unimportant tumors, and a few small nævi. It has, almost without exception, failed whenever used in large growths. As a method of treatment which does away with the knife (and one which can be used at times and in places where the knife cannot) it is certainly of value; but, even under the most favorable circumstances, it is an uncertain, and sometimes even a dangerous remedy. Uncertain, because it so seldom succeeds, oftener wearing out the patience both of physician and patient—dangerous, because it so often causes sloughing, the products of which cannot be at once removed, and hence exposes the patient to the dangers of septicæmia, etc., for a longer time than if the knife had been used.

The principal other methods of treatment are by caustics, ligature, and the knife. As for treatment by the knife, its advantages are too well known, and it is so much used that it needs no discussion here. Treatment by caustics and the ligature are both open to the same objections—they produce a sloughing sore with its possible consequences, and are very painful and tedious; indeed, they are now seldom used when the knife can be.

2. The action of the electric current on the human body is chiefly stimulant and tonic, and, when used for electrolysis, also decomposant (the constant current differing from the interrupted only in intensity), and there must necessarily be some irritation from the introduction of the needles. The elements of tumors (particularly cancerous ones) are of low vitality, are apt to ulcerate and degenerate, and particularly are they apt to grow when irritated, and to assume a malignant type. This is so well recognized that Jonathan Hutchinson, of London, has published a paper in which he shows how an innocent tumor may, by proper irritation, be converted into a malignant one, and those who believe in the *local* origin of cancerous tumors contend that always, in the history of one, will there also be found that of some antecedent injury to, or other irritation in, the part where it first appears.

In the history of this case *two* facts are to be noticed—1st, that the *interrupted* current was used for electrolysis; and 2d, that while under this treatment the tumor steadily increased in size, invaded the bone, and began to give evidences of having become cancerous. (It is to be regretted that no microscopical examination of it was ever made previous to its removal for the last time, but its general history was not that of cancer. When it was removed for the last time the microscope showed very plainly that it had become one.) May this not have been the result of the stimulation and irritation caused by the use of electricity?

Its history hitherto had only resembled that of cancer in its recurrence after removal, but from the time that the electrolytic treatment was instituted, it began to resemble it in almost all other points (rapid growth, pain, cachexia, etc. [the cachexia did not appear until about six weeks before his death]). Benign tumors of any kind, particularly recurrent ones, are apt from irritation to become malignant, and even in parts of the body previously healthy malignant growths arise from irritation, as, for instance, epithelioma of the lip from smoking, and "chimney-sweep's cancer" of the scrotum from the irritation of the soot. Now, the principal action of the interrupted current is stimulation; it is only feebly electrolytic, and there was a good deal of irritation from the introduction of the needles. Here were all the favorable conditions necessary; a recurrent tumor (probably on the point of degenerating into a malignant one) and decided stimulation and irritation. One conclusion, therefore, that may be drawn is, that this electric treatment converted this recurrent fibroid into a malignant tumor, or, at least, very much hastened its degeneration into one. Another is, that electrolysis should only be used in the treatment of tumors when they are very small, or are inaccessible to any other method.

Fort Wadsworth, N. Y. Harbor.

* * *

Close Quarters.—At West Lowe, in Cornwall, Eng., over eight thousand bodies have been interred in something more than half an acre of land, which has actually swollen up into a hill, leaving the church in a pit.

According to the writer in an English journal, putrefying bodies lie together through the soil like plums in a pudding, and when a new candidate for admission appears, exploring parties go out with an iron rod and take soundings till a firm space of four and a half feet is discovered. A horrible slime is said be constantly oozing from the graves in the higher part of the yard, which runs into the floor of the belfry, and disinfectants have to be used for the safety of the ringers. Fresh primroses gathered and placed in the church for purposes of decoration on Easter Sunday, turned almost black by the following evening, owing to the presence of sulphuretted hydrogen in the atmosphere in such quantity as to become dangerous to human life. On Ash-Wednesday the air of the church was so fetid that the congregation were unable to remain until the end of the service. The vicar and the government inspector desire a change, but the rate-payers, who apparently have the authority, think the present arrangement good enough.

SUBACUTE GASTRITIS FROM THE INHALATION OF BED-BUG POISON.

G. A. BAXTER, M.D.,

CHATTANOOGA, TENN.

M. B., aged twenty-four, lawyer; healthy, robust constitution; of good habits, and in every respect temperate, came to me July 18th, 1875, complaining of some uneasiness in the epigastric region and in the kidneys, with burning pains in the former, with tympanitis, tenesmus, increase of temperature, congested eyes, some giddiness, etc. Believing it to be only some slight derangement of the digestive organs or torpidity of the liver, I advised him to remain in my offices a day or two for treatment, which he did. I gave him one or two three-grain doses of calomel followed by a purgative. For a day or two he did very well, and went back to his own offices for business on the 20th July, 1875.

July 21st. Suddenly attacked again. Violent pains in epigastric region, high fever, intense headache, great tenesmus, abdomen very tympanitic; skin hot and dry; tenderness very marked over the epigastric region; pulse marked by increase in rapidity, but full and strong; considerable thirst, vomiting, soreness in region of kidneys, etc. I removed him to my own rooms again, where he could receive better attention. Placed a large mustard-plaster over his stomach. Gave him an active purgative, with a full dose of Dover's powder, the last for its diaphoretic and anodyne effects combined. He soon fell into a quiet easy sleep. The following day he was considerably improved; pulse still high, vomiting occasionally, considerable tenesmus and tympanitis, great tenderness remaining, and headache severe. Ordered tinct. aconite and spts. æth. nitrosi, with pulvis Doveri at intervals, as necessary for the relief of pain, and counter-irritation at intervals, as could be borne, with blistering.

July 25. Continued improvement until to-day, when I discharged him from further treatment, though considerable soreness remained.

The chief point of interest in this case remains to be told. In searching for a cause for the epigastric disturbance, I could find none in his habits, in his constitutional tendencies, in his surroundings or food taken, until he himself suggested a probable cause in the inhalation of some bed-bug poison he had been using in his bed room. On closer questioning I found that he had been using an aqueous solution of corrosive sublimate, very strong. He had commenced the active use of this the day previous to his first attack, spreading it over his furniture freely, especially his bed. He smelt it very strong that night when he retired. He had caused it to be used very freely ever since. On going to his room I could still detect the smell of hydrochloric acid gas, and I could not but be persuaded this was the true cause of the disturbance. During his stay in my office he had been free from its influence, and had rapidly improved. On returning to his own, and to this influence, he had been attacked again. I advised him to have his rooms thoroughly cleansed and ventilated, and he has not since been so troubled.

HÆMATURIA FROM A STRAIN.

J. L., negro, healthy and strong, iron-worker, aged 45, consulted me July 15, 1875, for hæmaturia. Passed in my office fully a half-pint of urine and blood mixed; the blood so thick that it clotted after being passed in the vessel, in part, some of it being in small clots when passed. He gave the following history of his injury:

Monday, July 11th, while lifting heavy cinders he had felt a sharp pain in the small of his back and lower portion of his bowels, and remarked that he had injured himself seriously internally. Continued work however, as the pain ceased almost as suddenly as it began; but in an hour or two, grew so faint that he had to stop work for the day. He consulted two physicians, and remained under their charge until Thursday morning, when he discharged them, having received no benefit he said, and applied to me. He affirmed that he had been passing blood just as freely as he had shown me, and I have described above, from Monday morning until that time.

I placed him immediately upon twenty-grain doses of gallic acid every two hours, and instructed him to go home and lie down. Instead of doing this he walked the distance of a mile and continued work. I did not see him until four that afternoon, and in the meantime he had consulted a physician in the neighborhood of his work, Dr. A. S. Wilsie, who had cupped him over the kidneys. Four o'clock P.M., bladder full and distended with urine and blood. Very weak, thought he had passed more blood to-day than usual. I drew from his bladder fully a quart of urine and blood, much more of the former however, I think, as there was now no clotting in the vessel. Washed out his bladder thoroughly with warm water and injected it two or three times with a strong solution of tannin and catechu. Ordered a continuance of gallic acid, increasing the dose to thirty grains. I have since learned that previous to coming under my charge he had taken 100 grains.

July 16th. Showed decided improvement, but very weak, more so than day previous. Continued gallic acid in same doses, with the addition of quinine five grains a day.

July 17th. Still improving. Urine almost clear. Feeling better in every way. Complains of a tickling sensation over the whole body. Washed his bladder out thoroughly. Ordered a continuance of same treatment, with instructions to send for me if needed again.

July 19th. Discharged from treatment recovered.

This man had taken, previous to the 15th, 100 grains gallic acid.

July 15th. He took 60 grains.

July 16th. He took 128 grains.

July 17–19th. He took 50 grains.

Making in all, 430 grains before recovery.

The difficulty in the case lay chiefly in an acurate diagnosis. The character of the pain, which was very slight and hardly to be located in any particular spot, as he described it, giving me no correct clue to the seat of the difficulty. I was at first undecided whether the blood came from the kidney or bladder. Hence, beyond simply washing his bladder out with water, I took the precaution to inject it with a strong solution of tannin and catechu. I am satisfied now, however, more from the line and result of treatment than anything else, that the lesion must have been in the kidney; probably the rupture of some capillary which poured its contents into the ureter.

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Private Free Dispensaries in Vienna.—Vienna medical men are very much excited just now over the question of private free dispensaries as a mode of advertising the specialties of their originators, and the medical journals are warmly denouncing these institutions.

POSITION IN SHOULDER PRESENTATIONS.

By E. R. MAXSON, M.D., LL.D.,

SYRACUSE, N. Y.

I PUBLISHED through *The Medical and Surgical Reporter*, in 1867, an account of a discovery which I made about seven years before, in relation to the treatment of *shoulder presentations.*

In the article referred to I stated as plainly as I could the circumstances connected with and leading to the changing of this abnormal to a perfectly natural presentation, *without risk to mother or child*, by placing the woman on her knees, on pillows of folded quilts, with the head and shoulders low, as suggested by Prof. T. G. Thomas to return prolapsed cord.

I stated in said article that it was while replacing a prolapsed cord, with the woman in that *position*, that I corrected an abnormal presentation, by the *position* and slight manipulation attending the replacement; and that from this circumstance I was induced to try this *position* in a bad shoulder presentation, in which I was entirely successful, gravitation doing most of it, I simply following the receding shoulder with my hand, grasping the vertx and bringing it into the superior strait, removing the hand after two or three pains had engaged the head, and the woman had been laid down on the left side, etc.

During the seven years I was testing the feasibility of this method, *for every case*, before publishing, I had suggested it to many prominent obstetricians, and had also given my experience in the matter before the Ontario County Medical Society, of which I was a member. And during the summer of 1867, while in Europe, I stated my observations and experience in the matter to Professors Leishman, Sir James Y. Simpson, and many others, all of whom appeared to appreciate the vast superiority of my method to *turning*, as being attended with no risk to mother or child, and very trifling inconvenience, that of *position*, and for not longer than from three to five minutes, or even less. In fact, so impressed was Sir James with the superiority of my method over the ordinary one of turning, that he insisted that I should write my Essay on Shoulder Presentations, "*explaining it*," for the International Medical Congress in Paris of that year, to which I was a delegate; and though I had prepared an essay on another subject, I complied, writing it while in London, and presenting it instead of the other, as he requested and insisted, telling me it was "the best thought I ever had," etc. And though Sir James showed me directions in an ancient German obstetrical work directing the *position* recommended by Prof. Thomas for returning prolapsed cord, which Thomas had never seen or heard of, as it had been forgotten; in making this position available for changing shoulder into a natural presentation, Sir James declared I was "ahead of them all," saying that he should "advise and practise it" thereafter.

And as it had been published in *The Reporter*, of Philadelphia, copied entire into the *Boston Medical and Surgical Journal*, and from that entire into at least one large obstetrical work, and referred to as an important American obstetrical discovery by Prof. S. D. Gross, in his Introductory, in the autumn of 1867, which was published in pamphlet form and distributed extensively in this country and abroad, I did suppose that it had become the established practice with intelligent obstetricians everywhere, as I know it is with many in this country and abroad.

But recent intelligence of children that have been sacrificed, and mothers imperilled, by the old method of *turning*, has convinced me that many may not as yet have availed themselves of *position* for changing shoulder into natural presentations, either because they may not have been informed, or else, having been posted on this subject, they have been incredulous, and slow to accept so simple, safe, and common-sense a method for a long established, formidable, and more or less dangerous one for both mother and child, even by the most skilful and prudent hands. And this must be my apology for thus *again* calling attention to the treatment of shoulder presentations.

NO. 208 MADISON STREET, SYRACUSE, N. Y., 1875.

Reports of Hospitals.

BELLEVUE HOSPITAL.

REPORTS OF PRACTICE AND PECULIARITIES OF TREATMENT.

PHTHISIS—PNEUMO-HYDROTHORAX.

A CASE of this affection exhibited some features of interest which will be noted as the history is given.

A female patient, æt. 30, with nothing of special importance in her previous history, was admitted to the hospital Aug. 6th, complaining of illness of long duration, but without definite ailment. She was considerably depreciated with respect to her general strength, and had a cough of very moderate severity, which was attended with more or less expectoration. When admitted, her temperature was 101° F., and evidences were found of lung consolidation, moderate in extent, at the upper anterior portion of the chest upon both sides. Associated with this was a slight amount of chronic laryngitis, which was regarded as one point of significance in the case.

The next day after admission the patient was seized with a severe lancinating pain in the right axillary region, and her temperature quickly arose to 105° F., and her respiration soon numbered fifty to the minute.

Her distress was intense, and a hypodermic injection of morphine was at once administered, which afforded some relief.

Upon the following day the temperature fell to 99½° F. at one hour, but in the main stood at 102° F.

There was another point of interest, namely, the comparatively quick subsidence of distressing symptoms, showing how readily in some cases the system and respiratory function accommodate themselves to the condition of lung and pleural cavity.

Aug. 9th,	P. 100,	R. 36,	T. 101½° F.
Aug. 10th,	P. 100,	R. 36,	T. 101° F.
Aug. 11th,	P. 126,	R. 36,	T. 102° F.

The respiration up to Sept. 13th has remained a about 36, pulse varying from 84 to 120, and T. from normal to 101° F.

Physical examination of the chest soon after the sudden accession of acute symptoms determined the presence of fluid in the right pleural cavity, and the succussion sound settled the question that the cavity also contained air. The case, therefore, was not one of simple pleurisy, but was first one of pneumo-thorax, which quickly developed into pneumo-hydrothorax.

The case afforded an excellent illustration of the possibility of determining by percussion the condition which had given rise to the flatness or extremely marked dulness present upon the right side. It was not due to œdema of the lung, for that is almost always *double*; tumors could be safely excluded, for they are very rare in this region: and lung solidification was thrown out of the estimate because the level of resonance could be most markedly changed by changing the position of the patient.

There was another point of some interest in the examination, and that was, the case illustrated very well the difficulty of determining by percussion alone whether there was simply a pleuritic effusion present, or whether the liquid was accompanied by air in the pleural cavity. The resonance was more intense, differed in pitch, and had more of the tympanitic quality above the level of the fluid than over the lung tissue upon the opposite side, but it was scarcely more intense or changed in pitch and quality than might be expected over a lung which is crowded up by a simple pleuritic effusion, and thus showed the necessity of further examination. Happily in this case the percussion sound was very well marked, which determined the diagnosis at once.

The case also suggested some questions relative to treatment. The indications, so far as relief of present symptoms was concerned, were negative, for the patient was lying comfortably upon the bed, and could assume the sitting posture without much difficulty of respiration being produced. But in view of the termination of a vast majority of these cases, the question arose, Would it be justifiable to at once remove the fluid from the pleural cavity? In those cases in which the effusion is large, and is the immediate cause of dyspnœa, which demands relief or threatens fatal syncope, etc., puncture, it seems well established, is justifiable and demanded. But in a case like this, now quite comfortable, is a free opening into the pleural cavity, by making an incision through the chest-walls, justifiable?

The question, it was urged, has not yet been satisfactorily answered by clinical experience. There was an inclination, however, to the opinion that the operation is proper in such cases. An important item in this particular instance, bearing upon the line of treatment to be followed, was the fact that the patient had renal disease, as evidenced by the urine having a uniformly low specific gravity (1.012), and containing hyaline and granular casts, although *no* albumen had been detected. The case, therefore, illustrated the necessity of making further examination of the urine for the detection of renal disease than merely testing it for albumen.

GONORRHŒA—EPIDIDYMITIS.

This case was interesting in several particulars. A patient, æt. 24, who felt perfectly well on Thursday morning, received a slight injury of the right testicle in the afternoon, and was awakened the same night by pain in the organs, although it was not very severe. In the morning he noticed that the testicle was somewhat swollen and red, but he continued to work, and in the course of the day it got hurt again. He continued at his work (expressman) three days, and then sought admission to the hospital. When admitted his temperature was 105° F., R. 30, P. 110, and the surface of his body bathed with perspiration. The testicle was found swollen, tender, and red, but not excessively so, and extremely painful. There was one noticeable feature of the case, namely, the severe constitutional disturbance following a slight injury of one of these organs.

Four leeches were applied upon the scrotum, and followed by a hop poultice. Morphine and aconite were administered to relieve pain and lower the temperature. Two days after admission, when the constitutional disturbance had subsided to a very great extent, a slight purulent discharge made its appearance at the meatus. Was it gonorrhœal or was it the result of the injury? It has been claimed by some writers that injury to the testicle may be followed by purulent discharge from the meatus, and in this case there was a history of injury and no acknowledgment of the existence of any discharge *prior* to receiving the injury. The man, however, *admitted that his urine had for several days before the injury* caused a slightly *smarting sensation* when voided. The diagnosis was epididymitis following gonorrhœa.

The treatment was criticised in the following particulars: The leeches would have been more effectual had they been applied along the course of the spermatic cord, which is directly over the seat of the most intense pain. Another reason for applying them over the cord, and not over the scrotum, is, that there is less liability of extravasation of blood taking place into the cellular tissue, and developing subsequent serious trouble in the way of ecchymosis, and perhaps erysipelas. Such accidents occasionally happen. Again, it was the opinion of the surgeon in attendance that the intense pain attending an attack of epididymitis is really due to the formation of an acute hydrocele, and that this can be much more readily relieved by introducing a small needle and removing the fluid than by the administration of opium, for by so doing the pressure is at once removed from the inflamed organ. Sometimes that will not answer, and then leeches and other measures must be resorted to. A very convenient suspensory bandage was in use in this case, the patient being in bed, and consisted of a broad strip of adhesive plaster, one extremity of which was attached to the anterior surface of one thigh, while the remaining portion was stretched underneath the scrotum, and secured to the anterior surface of the opposite thigh. In this manner the whole thing, as it were, was laid upon a shelf for repairs. Wearing a suspensory bandage was mentioned as a very important item in *preventing* the occurrence of epididymitis during the progress of a gonorrhœa.

TYPHOID FEVER—HIGH TEMPERATURE TREATED WITH SULPHATE OF QUININE AND HOT PACK.

There were three cases of this affection which presented some points of interest common to all of them.

First, The patients were young persons, aged 21, 16, and 21, respectively.

Second, The forming period of the disease was unusually *short*. In one case the patient was in bed the second day after first feeling ill; in the *second* case he felt chilly in the morning, worked in the afternoon, but was unable to get up the next morning; while in the *third* case the patient went to bed the second day after he began to feel "dull and lazy."

Third, The eruption was well marked, but not abundant.

Fourth, There was only slight abdominal distention, and diarrhœa was present in only one case, and that only in a mild form. There had been epistaxis in one case, and all three had a moderate amount of tenderness in the right iliac region.

The special point of interest, however, in these cases, related to the temperature of the patient and the manner in which it was treated. The record of each case will be given separately.

The first patient was admitted Sept. 2.

Sept. 3. His P. was 84, R. 24, T. 100° F. morning, and in the evening 103¼ F., when he received ten grains of sulphate of quinine. On the morning of Sept. 4 his T. was 101¼° F., and in the evening 103¼° F.

The patient then received twenty grains of the sulphate of quinine, and on the morning of Sept. 5 the T. was 101° F., and the pulse 66. This apparently was an effect produced by the quinine. At 6 P.M. his T. was at 104° F., and ten grains of quinine were administered. At 7 P.M. his T. was 104° F., and ten grains more were given. At 8 P.M. his T. was 103¾° F., and the patient received ten grains more; and at 9 P.M. his T. was 102¾° F., and ten grains more were administered. In this instance it was believed that the reduction of the temperature was clearly due to the effect of the quinine, because at that hour we should naturally expect the T. to be as high as at any time during the day.

The next morning the temperature was 100¼° F. At 2 P.M. fifteen grains of quinine were given, and at 3 P.M. the temperature was up to 103° F. At 6 P.M. T. 104° F. At 7 P.M. T. 104° F., and now twenty grains of quinine were administered. At 10 P.M. his T. was 100½° F.

Here again the reduction in temperature may fairly be regarded as due to the effect of the quinine.

On the day following, however, the temperature again arose, and when at 102° F. ten grains of quinine were given, and repeated every hour without producing any effect, while the thermometer arose to 103° F., and finally reached 104° F.

It might be said that the temperature would have risen higher had not the quinine been administered, but certain it was that it steadily arose while the drug was being exhibited. From this date, the 8th of September, his temperature ranged from 101° F. to 104° F., and in the afternoon of the 11th it reached 104½° F. when twenty grains of quinine were given, and a sheet wrung out of *hot water* was wrapped around the patient. In the meantime he had received ten grains of quinine every four or six hours upon an average, and when at any time the temperature arose to 104° F. twenty grains were given. The temperature fell only ½° F. after applying the hot pack. On the 12th the T. reached 105° F.; the hot pack was again resorted to, and it fell ½° F. within fifteen minutes.

On Sept. 17, 1.30. P.M., his T. was 104¾° F., and then the cold pack was resorted to. In this case the high temperature was the only grave feature, but that was held in abeyance by means of the cold pack.

The second case was admitted Sept. 4, with a T. of 105° F., which soon fell to 104° F., when twenty grains of quinine were administered and the stomach rejected it. Two hours afterwards the temperature had fallen 1° F. without treatment. On the 6th of Sept., at 6 A.M., his T. was 103° F., and ten grains of quinine were given. At 9 A.M. his T. was 103½° F., and at 10 A.M. he was packed in the hot wet sheet, and the temperature was reduced to 101½° F. At 2 P.M. his T. was 103½° F., and he now received ten grains of quinine each hour for two hours, and at 4 P.M. the temperature was 102½° F., while at 9 P.M. his T. was 103° F. Sept. 7, 6 A.M., T. 102° F.; 8 A.M. T. 101½° F., ten grains of quinine were then administered. At 10.30 A.M. his T. was 104° F., and ten grains more of quinine were given. At 12 M. his T. was 103½° F., and at 1.20 P.M. the thermometer stood at 104° F. At 2 P.M. the *cold* pack was resorted to, and at 2.30 P.M. his T. was 101½° F. At 4.15 P.M. the temperature had risen to 103¾° F., and the cold pack was repeated. This patient had been treated in about this manner, so far as temperature is concerned, receiving from twenty to forty grains of sulphate of quinine daily, and cold packs latterly as occasion seemed to demand. The action of the quinine has not been marked in any direction. The temperature has become high while it was steadily administered, and it has also fallen to some extent. It is now eleven days since the admission of the patient, and he is doing very well.

The third case was admitted Sept. 13, and was at once placed upon quinine, five grains three times a day. On Sept. 14 his evening temperature was 104° F. Sept. 15, morning, T. 102½° F., evening, T. 103° F.

The hot pack was at once resorted to, but *no* reduction of temperature was produced. Sept. 16, morning T. 101¾° F., evening T. 103½° F.

The hot pack was again resorted to, but *without* effect. Sept. 17, T. 104° F., and the *cold* pack was ordered at once.

GASTRIC ULCER—MILK TREATMENT.

A female patient suffering with this disease was admitted, and at once placed upon such quantities of milk as could be taken without being rejected by the stomach. The amount given at first was only a teaspoonful, which could be repeated about every twenty minutes. The milk was increased in quantity only as it could be tolerated by the stomach, and the patient was then able to take half a glass at a time. In addition, a piece of cardboard about the size of a five-cent nickel was dipped in nitric acid and laid over the region of tenderness in the epigastrium, and permitted to remain until the cuticle was destroyed, when it was removed and the sore kept open by dressing it with a piece of adhesive plaster. This patient had been in the hospital several times suffering from the vomiting, etc., incident to this affection, and had usually been treated with injections. But her recovery at this visit had been equally prompt and much more agreeable, although her symptoms had been as severe as at any previous admission.

SCIRRHUS OF THE FEMALE BREAST.

This case presented a few points of more than ordinary interest. In the first place the family history of the patient was good, all her near relatives having been healthy. In the next place she had always enjoyed excellent health until two years ago, when she was seventy-three years of age. She then discovered a lump in the left breast about the size of a walnut, but could not assign any reason for its appearance, such as a blow or other injury. Soon after the breast was removed, the wound healed kindly, and the patient had no further trouble, until about one year ago, when she discovered a lump in the *remaining* breast, which was of about the same size of the one that appeared in the left breast, and it gave her the same characteristic lancinating pains as did the first tumor. The second tumor has increased in size rather rapidly, and now involves the entire gland; is moderately adherent to the tissues underlying it. Ulcerative action has just commenced, and to some extent the disease has involved the surrounding skin; but the gland. in the axilla of the *same* side remain unaffected, while one upon the *opposite* side is nearly two inches in diameter, and is growing. It is also extremely sensitive to the touch, is somewhat painful, and yet has been observed only two weeks. Cases of this kind are quite rare, and the chief interest centres upon the recurrence of scirrhous disease in the opposite breast, involving the gland to such an extent as seen here without affecting the axillary glands upon the same side, but with coexisting manifestation of the disease in axillary glands of the left side, where the primary tumor was developed. Another point of interest was the absence of retraction of the nipple, where the disease was so far advanced as in this case. The old cicatrix was movable, and presented a perfectly healthy appearance. The patient was comparatively comfortable; the pain was not sufficient to prevent sleep, and is not severe at any time. In consideration of her age, present condition, the mass more or less adherent, the integument more or less involved, and manifestation of the disease in the opposite axilla, operative interference was regarded as contraindicated. Still, if the patient desired its removal, if it was torturing her with pain, or if it was a source of mental annoyance, an operation was regarded as justifiable. In the event of an operation it would be necessary to receive both masses of the disease.

DYSURIA.

The following prescription is a very valuable one for the relief of dysuria, especially in women, accompanied with a scalding sensation, voiding only small quantities of high-colored urine, etc. :

℞ Ext. belladonnæ fld	ʒ i.
Ext. buchu fld	℥ i.
Spts. ætheris nitrat	℥ ij.
M.	

S. Teaspoonful four times a day.

If the eyesight is much affected the quantity of belladonna may be diminished.

ASTHMATIC MIXTURE.

The following will relieve the attacks of asthma in a goodly number of cases:

℞ Potass. iodid	ʒ i.
Vin. ipecac	ʒ ij.
Spts. ether. co	ʒ i.
Syr. simplicis	℥ i.
Aquæ	℥ v.
M.	

S. Teaspoonful every two hours during paroxysm.

ANTI-BILIOUS PILL.

℞ Pil. hydrarg.,	
Pulv. aloes soc.,	
Pulv. rhei,	
Ext. hyoscyami	āā grs. vi.
M.	

Div. pil. No. vi.

S. Two every other night.

The above will be found to be a most excellent pill for the relief of many dyspeptic symptoms, such as nausea, constipation, vertigo, etc., and can be followed with advantage by a pill made according to the annexed formula:

PILL FOR DYSPEPSIA.

℞ Ext. nucis vom	grs. v.
Pulv. rhei,	
Sodæ bicarb	āā ℈i.
M.	

Div. pil. No. xx.

S. One three times a day.

EVAPORATING LOTION TO PREVENT EXTENSIVE ECCHYMOSIS, SUCH AS FOLLOWS BLOWS, ETC.

℞ Ammoniæ muriat	ʒ i.
Alcohol	℥ iv.
Aquæ	Oi.
M.	

Apply cold, and keep the parts constantly wet.

ANTI-PRURITIC REMEDY.

℞ Gum camphor,	
Chloral hydrate	āā ʒ i.
Rose ointment	℥ i.
M.	

The rose ointment is preferred because it does not get rancid. This application does not answer when the skin is scarcely broken.

FOR CEREBRAL CONGESTION.

℞ Sodæ bromid	℥ i.
Oxid. zinc	ʒ i.
Sacch. pepsin	ʒ iij.
Hydrochloro-phosphat. calcis,	
Ext. ergot fld	āā ℥ ij.
M.	

To be administered in drachm doses. The hydrochloro-phosphate of lime is made by saturating dilute hydrochloric acid with phosphate of lime.

COUGH MIXTURE.

Opium does not enter into this prescription, and it can, therefore, be used with special advantage in the treatment of the cough of consumption:

℞ Acid. hydrocyanic. dil.,	
Chloroform	āā ʒ i.
Tr. hyoscyami	℥ ss.
Aq. camph	ad ℥ ij.
M.	

S. Teaspoonful in a wine glass of water three or four times a day.

FOR SPERMATORRHŒA.

The following will be found serviceable in the treatment of this difficulty:

℞ Potass. bromid	℥ i.
Tr. ferri. chlorid	℥ i.
Aquæ	℥ iij.
M.	

S. Two teaspoonfuls three times a day.

The taste of the dose is disgusting, but the effects are excellent.

The following has a popular hospital reputation as a

POST-PARTUM PILL.

℞ Ext. colocynth co.,	
Hydrarg. submuriat	āā ʒ iij.
Ext. nucis vom.,	
Pulv. aloes,	
Pulv. ipecac	āā grs. xx.
M.	

Div. pil. No. 120.

One to four to be taken at a dose, and instead of castor-oil after parturition.

The following is a popular

LAXATIVE,

and a most admirable combination. It is particularly serviceable in the treatment of dyspepsia:

℞ Sodæ bicarb	ʒ i.
Pulv. rhei	ʒ ij. to ℥ ss.
Tr. menth. pip	ʒ ij.
Aquæ	ad ℥ iv.
M.	

Dose, tablespoonful. Shake the bottle before taking, and repeat according to the effect upon the bowels.

FOR MUSCULAR RHEUMATISM.

℞ Ammon. muriat	℥ i.
Tr. ferri. chlorid	℥ i.
Aquæ	℥ iij.

S. Two teaspoonfuls t. i. d.

THE MEDICAL RECORD:

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SANITARY REFORMS IN OUR SCHOOLS.

The interest which is manifested in the sanitary care of school children is every little while freshened by some suggestions in the shape of resolutions from scientific bodies. At the recent meeting of the British Medical Association attention was directed to the subject by the Section on Public Medicine. In the report which it presented the defects of the general school system were graphically described, and many very sensible remedies suggested which it is worth the while of our School Commissioners to take into account. It seems strange, indeed, that facts which are so palpable to every superficial observer should require such constant reiteration in order to establish conviction and bring about reforms which ordinary common sense should at once conclude were necessary. For the very reason, perhaps, that remedies are so easy and the truths so plain, no energetic initiations are taken by our practical educators. No one is willing to doubt the fact that it is highly important for the young scholars to have healthy surroundings; that they should be properly guarded against the effects of constant violation of sanitary laws; yet our schools continue to be over-crowded, our buildings are defective in facilities for heat, light, and ventilation, and contagious diseases spread with a certainty which it is fearful to contemplate. This has been proven over and over again within the past few years, leaving no room for the reasonableness of the appeals of those of us who, perhaps vainly, wish for better things. There is no need for attempting to establish these premises in the attempt to carry out the argument for school reform, as they are not only self-evident, but are freely admitted to be sound by all who are directly or indirectly interested in the question at issue.

The suggestions of the Section on Public Medicine referred to, although not exactly new as to the results sought for, carry with them a novelty as to the means to be employed which may be made practicable with us, and which may tend to correct many crying abuses connected with the construction of our various school buildings, both public and private. It is proposed that no buildings be allowed to be used as schools unless certified by a surveyor and medical officer of health as in every respect adapted to educational purposes; that the maximum number of children to be admitted to each school be fixed, and that the medical officer of health have access to the premises for purposes of inspection at all reasonable hours.

If these provisions could be faithfully carried out, it can be easily seen that much good would be accomplished. In order that such could be done, however, by our School Commissioners, some changes in the organization of the present system might be called for. The necessity of medical inspection forces itself upon their consideration at the very outset, and may touch them upon a question of conscience which they have attempted to ignore by a foolhardy opposition to the arguments of the entire medical profession. We care not how the case may be viewed, proper sanitary inspection lies at the very foundation of all hope of any change for the better. It matters not how the details of such an inspection may be carried out, or to whom the duties may be entrusted, whether to one or many, whether to an officer appointed by the Board of Commissioners of Education or a member appointed by the Health Board, the good results would be, practically speaking, the same. The arguments in favor of establishing the principle of sanitary inspection have been long ago worn threadbare, and a restatement of them is at this time obviously unnecessary.

The recommendations regarding sanitary inspection have an equal application to the various private schools throughout the country, which seem to be entirely independent of any outside influence or authority. Many of these institutions are excellently managed, and may, in a hygienic sense, be considered models of their sort, but this is by no means true of the majority. How often are children crowded together into a small apartment of some private house, in which no other provisions for sanitary requirements are made than are sufficient for an ordinary family. The air capacity of such so-called school-rooms is never taken into account, the main desideratum being to occupy all the available floor space by desks and benches. The Health Board is competent to act under these circumstances, and exercise a very needful authoritative control over these pecuniarily ambitious pedagogues.

But, as we have said before, we are more interested as to the necessity of such inspection than to the manner in which the details of any system may be carried out.

HOSPITAL STEWARDS OF THE ARMY.

The complaints of our correspondent—one of the hospital stewards of the army, who speaks in behalf of his corps—are reasonable and just, but we fear that the remedy sought is a long way off. Still there is nothing like agitating any question tending towards the reform of abuses.

The unsuccessful struggles by the medical staff, for this very increase in rank and pay, shows what the stewards have to hope for. We would not advise them to take any active steps towards maintaining their rights until the question is settled with the medical staff. Then the proper foundation will, in our opinion, be laid for the effective working of those influences which are so necessary to secure the end in view.

Reviews and Notices of Books.

Transactions of the Medical Association of the State of Alabama. 28th Session, 1875, at Montgomery, April 13th, 14th, and 15th. Montgomery, 1875.

This is a paper-bound book of 360 pages, and contains, besides a condensed report of the Transactions of the Society and the "House of Councillors," the second annual report of the Board of Censors relative to the new law constituting the Society the Health Board of the State. The President's address and an annual oration by Geo. A. Ketchum, M.D., of Mobile, are printed in full, together with the following elaborate papers:—Tuberculosis and Scrofulosis, by E. P. Gaines, M.D., of Mobile; Climate of the United States, considered with Reference to Consumption and Pneumonia, by W. D. Bizzell, M.D., of Mobile; Malaria, its Nature and Mode of Spread, by Benj. H. Riggs, M.D., of Sedalia; Recent Progress in Gynæcology, by F. M. Peterson, M.D.; History of the Small-pox Epidemic in Mobile, 1874–75, by Jerome Cochran, M.D., and The Health Ordinance of the City of Mobile. Several smaller papers are distributed through the volume, among which is one by James Guild, M. D., on a Case of Lithotomy, and another of Wound of the Brain, the latter of which is so unique that we quote it entire.

"Col. D. H. B., in an affray with a distinguished ex-member of Congress, received a wound on the occipital bone with a spear from his sword-cane. Soon after, he was attacked with epilepsy, which continued to increase in intensity for two years, notwithstanding all the medical aid that could be instituted was applied. It so happened that the combatants, some two years after the affray, met in Tuscaloosa, made friends, and retired to a saloon to take a social glass together. Excuse me for relating the incident as it occurred.

"Before or about taking their beverage, the Congressman observed, 'Col. (with an oath), there is a piece of my sword-cane in your brains.' The Col. asked for an explanation. He was informed that 'after the fight, I discovered that the point of my sword-cane was broken off; and to a certainty it is in your brains.'

"The Colonel, without taking his glass of liquor, made haste to my office, and related to me what had just occurred. It struck me immediately it was all true, and that it was the cause of the fits. On making an examination, I found a slight protuberance on the occipital bone, which he informed me occasionally issued a little matter.

I immediately shaved off the hair, made a transverse incision, exposed the bone, and found the spear broken off even with the skull. I thought of trepanning over the spear in order to liberate it, but procured a common hand-saw file, and filed away the skull on each side of the spear so that I could get hold of it with the forceps. Accordingly, I used a pair of tooth-forceps and succeeded in extracting the spear, which, by measurement, entered the brain about one inch. It was the last of his convulsions."

The book is notable as an example of good printing and editorial taste, aside from the value of the papers it contains.

The Mucous Membrane of the Uterus, with Special Reference to the Development and Structure of the Deciduæ. By Geo. T. Engelmann, A.M., M.D. New York: William Wood & Co., 27 Great Jones Street.

This little monograph, which is a reprint from the May number of *The American Journal of Obstetrics*, gives us in some sixty-odd pages a concise record of histological work, most of which was done in Vienna and Berlin, and in great part with the co-operation of Dr. Kundrat, of Vienna. The main conclusions were published in *Stricker's Medicinische Jahrbücher* for 1873, but the subject has undergone revision since that time, and so many alterations and additions have been made that the present publication is in many respects new. The subject-matter is prefaced by an elaborate and minute description of the changes that take place in the uterine mucous membrane from fœtal life until the period of uterine inactivity. A noteworthy point is the denial of Pouchet's theory, lately revived by Williams, that the mucous membrane is shed at each menstrual epoch; the author states that he has studied the membrane immediately after the flow had ceased, and has never found the epithelial coating entirely absent, though a portion of its upper layers is sometimes expelled, as in membranous dysmenorrhœa. At the menstrual periods the cellular elements of the mucous membrane undergo a sort of fatty degeneration, and this change he holds to be the cause rather than the consequence of the hemorrhage. The description given of the surface of the uterus after parturition is interesting, and may be more available for practical purposes, as indicating the nature of the tract through which the poison in puerperal fevers finds entrance into the system. The author denies emphatically Cruveilhier's statement, that the uterus, after delivery, is laid bare down to the muscle, as also the view that a new mucous membrane is formed during pregnancy.

When parturition takes place at full term the ovum carries away with it the whole of the decidua reflexa, the entire upper cellular layers of the decidua serotina —that portion of the decidua lying between the uterus and the ovum—with its uppermost epithelial layer, while the greater portion of the decidua vera, and the spongy lower portion of the serotina vera remain attached to the uterus. This, then, explains how the epithelium can again be reproduced, for, as Friedländer has shown, the portion of the decidua now remaining behind is dotted with minute depressions, which are really the uterine follicles, clothed with epithelium, and from them, as centres, the epithelium covering is again to be formed, the cell-layer partly covering them, and the thickened connective tissue about them, together with the thrombosed vessels, all gradually disappearing by absorption. We are not justified in going into further details, though we may mention that the author's investigations showed that ovulation and menstruation are coincident in point of time, being thus in agreement with Dalton and Coste.

The monograph bears the impress of a large amount of careful and methodical scientific work, and it will, doubtless, be regarded as a valuable contribution to our anatomy. The style is clear and forcible, and there are excellent cuts to show the appearances that were observed.

Progress of Medical Science.

The Effects of Lead upon Type-Founders and Printers, as observed in Leipsic.—In Leipsic, states Dr. Stumpf, are thirteen large type-founderies and seventy-two book-printing establishments, and he therefore regards it as a particularly favorable place to study the diseases to which those persons are subject whose business requires them to be constantly handling the type. The type-metal is an alloy of lead and antimony, to which small proportions of tin and copper are sometimes added. He describes the processes through which the type has to go, in the course of manufacture and finishing, and finds that of all the workmen engaged on this work the founder is most exposed to danger from the volatilization of the heated metal. Coming to the type-setting, he finds that here the right hand is most employed, and yet the nature of the work brings the face of the type-setter so near that he is in danger of swallowing or inhaling small particles of the metal. In printing it is only in the use of hand-presses that the workmen are much exposed. Here the hardest work falls upon the right hand, and on the principle that those muscles which are most used would furnish the greatest amount of tissue change, and so would retain most lead from increased access of blood, he explains the fact of the right hand being most commonly affected by lead poisoning among this class of workmen. Dr. Stumpf then collected specimens of the dust found in different parts of the establishments, and at different heights in the rooms, and on chemical and microscopic examination the metallic elements were found in all the specimens, thus proving the air constantly breathed by the workmen to be impregnated with such particles. Of course the quantity of such impurities varies greatly. In winter, *e.g.*, when the windows are closed, and there are fewer currents of fresh air, the proportion is greater, and the statistics show a greater poisonous influence at this season. Of course there are various other ways besides inhalation by which the metallic particles are introduced into the system.

Dr. Stumpf's investigations would indicate that in printers and type-founders the lead does not enter the system through the epidermis; the mucous membranes, however, furnish a readier means of entrance, as evidenced by the frequency of affections of the respiratory and digestive organs due to lead-poisoning.

In the liver especially is lead to be found, and next in frequency in the muscles. The extensor muscles of the right hand are the most frequently affected. Lead is also found in the kidneys, blood, bones, and lungs, but only the merest traces in the nervous system. The author believes that the deposit of lead stated to take place in the smooth muscular fibres of the blood-vessels, by diminishing their calibre helps to explain the atrophy of the muscles, and also the occurrence of abortion. Many of the facts which we have thus extracted from Dr. Stumpf's paper, and many others for which we have not room, are supported by a series of statistical tables which he has constructed from the material furnished at the Polyclinic in Leipsic, during a series of four years.—*Archiv der Heilkunde*, Aug. 9, 1875.

Threatening Collapse after the Administration of Apomorphia.—The dose of apomorphia as an emetic for an adult appears to be about $\frac{1}{10}$ grain, though $\frac{3}{20}$ has been used without harm. Several authors, however, have counselled greater caution, and the following case, reported by Dr. Prevost, of Geneva, shows the need of it. To a lady of forty, at an early stage of an attack of bilateral angina tonsillaris, was given at 9.45 o'clock a hypodermic injection containing not above $\frac{1}{15}$ grain of muriate of apomorphia. In four minutes she became nauseated and dizzy, and very soon after pale and collapsed; the pulse grew weak, intermittent, and finally imperceptible; the pupils became dilated, and respiration seemed to have stopped. She was unconscious also. She was placed with the head low, was sprinkled with cold water, the skin rubbed, and sinapisms applied to the calves. After three minutes she revived so far that the pulse could be felt, and she vomited twice. She now regained consciousness, and spoke, but almost immediately sank into a more profound faint than before. Under similar treatment she revived by 10.25, so as to speak again, and her pulse beat 88 to the minute. She vomited again without fainting, was given brandy, and soon fell asleep. By noon the next day she had quite recovered.—*Gaz. hebd.* 2 *Sér.*, xii., 2, p. 20, 1875. —*Schmidt's Jahrb.*, Aug. 12, 1875.

A Peculiar Form of Purpura.—Prof. Henoch gives the histories of four cases, all occurring in persons of fifteen years or younger, in which there were associated the following unusual group of symptoms, viz., rheumatic pains in the joints, the development of purpuric spots, intestinal colic and bloody discharges from the bowels, with some fever. These affections were subject to relapses after they were apparently recovered from, and thus lasted through a period of weeks, in one case three months. The rheumatoid symptoms always preceded the separate attacks. The purpura was most marked upon the abdomen, the genitals, and the lower extremities, and was not seen on the face. The author has been able to find reports of but three similar cases. In one reported by Wagner (*Arch. d. Heilk.*, x., 4, p. 361, 1869), in addition to the symptoms described by Henoch, there were albuminuria and membranous shreds in the alvine evacuations. This patient died, and the autopsy revealed purulent peritonitis and a highly developed enteritis, with numerous superficial ulcerations of the mucous membrane, follicular swelling, and in places deposits of false membrane. Henoch believes that these various symptoms have some intimate relation with one another, the nature of which is yet to be explained. —*Berl. klin. Woch.*, xi., 51, 1874.—*Schmidt's Jahrb.*, Aug. 12, 1875.

After-History of Fifty-one Cases of Lithotrity.—Sir Henry Thompson gives the record of recent cases at from one and two years after the operation, in reply to a request of Mr. Thomas Smith, who desired to know the condition of the patients at any period not less than twelve months after the procedure.

In this series fully twelve months have passed since the date of the last operation, and more than two years and a quarter have elapsed since the first of the series was operated upon.

Between December, 1872, and May, 1874, Sir Henry has performed lithotrity on 53 patients, two of whom died, leaving 51 cases of recovery, the mean interval between the date of operation and the present report of their condition being about twenty months.

From 6 of the 51 no information has been received, but he believes that such evidence as exists in regard to them is greatly in favor of their being better, and not worse, than the average, since their mean age is fifty-four years, nearly ten less than the average age of the whole series.

Of the remaining 45, 11 have since died, the causes of which were, organic heart disease, 2; malignant disease, 1; of natural decay, at eighty, 1; the remaining 6 of urinary disorders and advanced age together (the mean being sixty-six years). Five of these six had not passed any urine, except with the aid of the catheter, for years past, and their prolongation of life had been entirely due to the improved modern means of removing retained urine and phosphatic deposits.

Of the 34 living, 28 are enjoying good health, at an average age of sixty-three and a half years.

The other 6 have signs of recurring calculus, 2 having had a newly formed calculus removed.

All are well but one of these, who suffers much.

The comparative mortality between lithotomy and lithotrity, taking into account their average age, sixty-three years, is considered, and it is stated that 14 deaths in lithotomy would not be thought a bad result in such cases.

A detailed account of the 51 cases concludes the article.—*The Lancet*, July 3, 1875.

THE TREATMENT OF DIARRHŒA IN CHILDREN.—In a recent (July 8) number of the *Boston Med. and Surg. Journal*, Dr. J. P. Oliver presents some practical hints concerning the treatment of that common form of diarrhœa in children which depends upon the non-digestion of the food. The disease is most apt to attack children between the ages of six months and two years, and during the hot season of the year. The attack is often excited by taking some indigestible article of food, or after an exposure to cold a diarrhœa is produced, which tends to become chronic. The stools are acid, and consist of a peculiar, light-colored, pasty-looking substance, mingled with mucus, and perhaps streaked with blood. Progressive emaciation and debility ensue, and, finally, a fatal termination either in connection with cerebral symptoms or as a result of some intercurrent affection. The main points in Dr. Oliver's treatment of this form of diarrhœa appear to have reference to deficiency in the catalytic force displayed in the process of digestion and to the excessive acidification with which the digestion is associated. When undigested food is found in the dejections, it is inferred that the child's diet is not adapted to its digestive powers. If the diet has consisted of pure milk, the addition of gelatine to the milk, as recommended by Meigs and Wyman, will often assist digestion indirectly by preventing coagulation in the stomach, and thus enabling the "digestive agents" to operate at a greater advantage. As a rule, a farinaceous diet is unsuited to infancy, on account of the inability at this early period of life to effect the transformation of starch into sugar. In the so-called Liebig's soup, however, the presence of diastase in the malt supplies the defective ferment in the stomach, and assists to digest the flour which the soup contains. Sometimes this preparation, therefore, is well borne in quite young children. Its effect must be tested by inspection of the stools. For children who can be supplied with cream or good milk, no other food is thought necessary. The excessive acidification is best combated, according to Dr. Oliver, by means of the bicarbonate of potassa, to which the addition of an aromatic is advised. The potash is preferred from the fact of its being a natural constituent of the milk. When the powers of life begin to fail, and but a small quantity of food can be taken at a time, beef-tea is given, to which a little saccharated pepsin is added. If the fontanelle becomes much depressed, stimulants are indicated.

THE CAUSES OF THE SPONTANEOUS COAGULATION OF THE BLOOD AFTER ITS ESCAPE FROM THE BODY.—According to F. Glénard, when a certain length of an artery or vein full of blood in a living animal is isolated and exposed to the air, the blood does not coagulate, whatever be the capacity of the vessel. After a variable time, depending upon the volume of the vessel and the amount of blood contained in it, the blood becomes so dried as to present the consistency of horn. If, while in this state, the blood is made into a serous or pulverulent mass, and is then treated with water, it dissolves, and this solution is susceptible of coagulating spontaneously in a mass, even after filtration.

The prevention of the coagulation is directly owing to the concentration of the blood; if in the previous experiment evaporation is prevented, the blood coagulates spontaneously, but not before the expiration of from twelve to fifteen hours after its isolation from the animal, and not in five or ten minutes, as is the case when it is received into a basin.

In venesection the coagulation of the blood in the basin is due to the contact with a foreign body.

In fact, the only instance in which the blood is seen after its escape from the system to preserve a fluid condition for as much as twelve hours, without the intervention of artificial, physical, or chemical agents (such as cold or alkaline solutions), is where the contact with foreign bodies is prevented.

The influence of foreign bodies upon coagulation is less in proportion as these bodies resemble the vessels in their physical structure.

Aside from the contact of foreign bodies, not one of the new conditions by which the blood is encompassed on issuing from the system is capable, either by itself or in combination with the rest, of determining coagulation. Coagulation is not normally due to any gaseous intervention of a chemical nature, either in excess or through deficiency.

The blood that is enclosed in the vessel thus isolated from the animal may be impregnated with carbonic acid, oxygen, even with hydrosulphuric acid, without coagulating and without losing its coagulability, as evinced when it is received in a basin (foreign body).

Blood preserved in the vessels is capable of being revivified by being rendered fluid, and beef's blood, seven hours after issuing from the organism may be successfully employed for transfusion in a dog bled nearly to death.

The blood is living to the extent that it is spontaneously coagulable. Coagulation is the death of the blood. The coagulability is suspended, but not destroyed, by concentration of the blood, just as the manifestations of life are suspended in the rotifers by desiccation; in both cases the addition of water restores the physico-chemical conditions necessary in the one case to perform the functions of life, in the other to coagulate spontaneously.—*La Tribune Médicale*, August 15, 1875.

PROFESSOR MASCHKA, of Prag, is to occupy the chair of medical jurisprudence in the University of Vienna.

Correspondence.

TREATMENT OF EPIDEMIC DISEASES DURING THEIR INCUBATIVE STAGE BY THE USE OF THE THERMOMETER.

To the Editor of The Medical Record.

Sir:—Reflecting upon diseases and their causes, we naturally inquire why it is that in the same house, during an endemic or epidemic, where the different individuals are surrounded by the same hygienic influences, and inherit the same constitutional tendencies, they are differently affected by the same disease—one having a light attack, another case proving fatal, and the others suffering from attacks of intermediate severity?

The differences in the type of diseases under these circumstances is caused by the functional disorders which result from the individual habits. These reflections in giving us the causes also indicate the remedy, viz.: That during the prevalence of epidemic and endemic diseases we should carry our hygienic measures a little farther, and not only remove and destroy the causes which exist without the body, but also those (which I consider of greater importance) from within the body—the disordered secretions.

If we pursue this plan strictly, we reduce the attacks to their minimum severity, and prevent a great many, who would otherwise have been infected, from taking the disease at all. The number of lives which can be saved by this method has been proved by the practice of inoculation in small-pox.

In addition to the above measures we can take another step, which, if carried out with equal strictness, will, I believe, enable us to "STAMP OUT EPIDEMICS."

I PROPOSE TO TREAT THESE DISEASES DURING THEIR INCUBATIVE STAGE. BY THIS METHOD WE WILL ALMOST INVARIABLY PREVENT THEIR FURTHER DEVELOPMENT, AND INSURE A UNIFORM SUCCESS IN THEIR TREATMENT.

This plan is rendered practicable by the use of the "Thermometer." We can place a thermometer in the hands of a member of each household, having instructed them in its use. This person can take the temperature of each individual in the house three or four times during the twenty-four hours—say at 6 A.M., 12 M., 6 P.M., and at 10 or 12 P.M. Upon discovering the slightest deviation from a normal temperature immediately notify the physician.

For the pauper districts instruct members of the Benevolent and Christian Associations in the use of the thermometer, and assign to each one so instructed two or more houses.

A printed circular containing explicit directions for the proper observance of hygienic rules, and impressing the importance of their strict application, should be placed in every house.

During the prevalence of an epidemic a physician should be appointed to enforce these regulations.

In the hospitals, military and civil, this system could be carried out with facility, and its usefulness demonstrated.

Benj. S. Purse, M.D.

Savannah, Ga

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The London Medical Schools commence their next session on the 18th of October.

ELECTRICITY IN VOMITING.

To the Editor of The Medical Record.

Sir:—Among numerous letters corroborating my statements regarding the efficacy of electricity in vomiting, from whatever cause, received by me since the publication of my paper in the second number of the *Archives of Electrology and Neurology*, I select the following for publication, as of more than usual interest, especially as it comes from a foreign source. It is reported to me very briefly, not for publication of course, by Dr. James Cecil Phillippo, of Spanish Town and Kingston, Jamaica, a physician in large practice there.

Respectfully yours,
Frederic D. Lente, M.D.

"Case.—Shortly before leaving Jamaica, and after having read your paper on the use of electricity in vomiting, I had a very interesting case of vomiting in pregnancy, which no known drug could even alleviate. She had suffered similarly on previous occasions for months; but on this occasion it bade fair to be worse than usual. She was almost starving, and some degree of *hæmatemesis*, three or four ounces at a time, had commenced. Immediately after the first use of an electro-magnetic battery, she was able to take some bread and milk, followed by chicken; and three or four applications were sufficient to cure the sufferer. On my return I propose to use it in remittent and yellow fevers."

F. D. L.

Saratoga Springs, N. Y., 1875.

HOMŒOPATHY IN THE MICHIGAN UNIVERSITY.

To the Editor of The Medical Record.

Sir:—Upon reading the article of Dr. Gerrish, in your issue of September 18th, we could not avoid being convinced of the pertinence of his remarks. We feel sorry that the action of the Legislature and the Honorable Board of Regents should expose the Medical Department to the censure of all, and place the diploma of a deservedly reputable college at a discount. We feel it our duty to call the attention of those holding degrees, to the fact, that our "Alma Mater" is in danger of being placed under the ban of the American Medical Association, and condemned by all reputable members of the profession. Therefore we would suggest that the "Alumni" as a body protest against the joint-stock arrangement. We are not adverse to give these "self-styled martyrs" a chance to prove the *fallacy* (for fallacy it will *prove* to be, as can be ascertained by examining the statistics of its trial in Europe) of their ideas; but we protest against this "silent partner" arrangement. Let homœopathic anatomy, physiology, chemistry, obstetrics, and gynecology be taught by *brethren*, not by those whose *practice* illustrates that "similia similibus curantur" is entirely fallacious and not capable of demonstration.

We only feel desirous of setting the "ball in motion," and would apologize for advancing these few crude ideas.

J. W. Brown,
Class 1873.

Brocketts, N. Y.

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Dr. H. A. Buttolph, late Superintendent of the New Jersey Asylum for the Insane, has been appointed Superintendent at the new State Asylum at Morristown, N. J.

THE INDIA-RUBBER CATHETER.

To the Editor of The Medical Record.

Dear Sir:—I hasten to report, for the benefit of my brethren who are often in straits by reason of patients with enlarged prostate, the success which followed the use of the new (Jaques's patent, I believe) india-rubber catheter.

Dr. W. A. Smith, of this city, was attending a gentleman, aged seventy-eight, with retention of urine from enlarged prostate, and failing to relieve him with the usual means, my partner (Dr. J. D. Bromley) and myself were called in consultation.

We used the aspirator (Potain's) several days in succession, of course relieving the patient, but not restoring the natural evacuation. Happening to mention the case to Dr. Dennis, of this city and Bellevue Hospital, he suggested the use of the new catheter, and was good enough to forward me one, with which I entered the bladder in less than a minute. It was a most surprising as well as satisfactory result; for though Dr. D. had assured me of the advantages of this instrument in case of stricture under his observation, as well as of prostatic hypertrophy, still it seemed little likely that an instrument so very unstable and limp would find its way through the urethra to the objective point.

Hereafter I shall try the new catheter in retention before resorting to the (hitherto best method) the aspirator.

Yours truly,
Alex. N. Dougherty, M.D.

Newark, N. J., *September* 8, 1875.

STIMULANTS IN TETANUS.

To the Editor of The Medical Record.

Sir:—The following brief account of the treatment, with favorable results, of two cases of tetanus, occurring in the practice of my brother, Mr. Theodore Outerbridge, V.S., may prove of interest to the profession generally, as tetanus has always been regarded as fatal in nearly all cases.

The first case was one of our own ponies. Tetanus resulted from the prick of a nail in one of the hind hoofs. At the first symptoms of the disease the usual remedies in such cases were employed for a week or ten days; no good results ensuing, he (my brother) tried alcoholic stimulants, in the form of old rum and whiskey. This was kept up for about a month, giving about one pint a day, with light fodder, warmth, etc., etc.; the pony, a mare, gradually improved under treatment, and is now as well as ever she was, no troublesome complications ensuing.

The second case was a colt, on which he had performed castration; the owner allowed the stable to get wet, and tetanus resulted from exposure. In this case no other medication, except stimulants, was employed; attention was paid to ventilation, warmth, etc. This case resulted even more favorably than the first, and the colt is now all right.

Sir Thomas Watson, in his lectures on tetanus, alludes to stimulants, and advised the use of wine, and narrated a story (in illustration) of a gentleman who owned a favorite horse, which, being taken with tetanus, he treated him with wine; the horse got well, but he drank more wine than he was worth. In the two cases stated, the liquor used cost about 5 per cent. of the value of the animal.

Although no advocate of stimulants in the general treatment of disease, yet I would advise the trial of *pure* alcoholic liquors in the treatment of tetanus in the human subject, provided he could be induced, like the equine species, to forbear its use when no longer required; for, unfortunately, the abuse of alcoholic stimulants is one of the curses of our fair islands, which, were it not for diseases induced thereby, would be the healthiest spot on earth.

Yours respectfully,
Aggeus Outerbridge, M.D.

Platt's Village, Bermuda, *August* 25, 1875.

THE RANK AND PAY OF THE HOSPITAL STEWARDS OF THE ARMY.

To the Editor of The Medical Record.

Sir:—The hospital stewards of the army have long been endeavoring to bring before Congress a statement of their grievances, but have found no champion in that honorable body to advocate their claims. The hospital stewards of the army are, as a class, men of professional abilities, and being pharmacists is required by "Army Regulations." They are required to be sufficiently well versed in clerical duties to prepare all the reports, returns, and keep the necessary registers and record-books of the hospital. They are required to superintend the cooking in the hospital, purchase the necessary provisions for the sick, and see that all articles of extra diet ordered by the surgeon are prepared properly and given at a proper time. They are required to take charge of the hospital clothing and bedding, seeing to its being neatly laundried, mended, and changed upon the beds. He has charge of large and valuable stores of medicines, instruments, and everything pertaining to a hospital, and he is held accountable for their proper preservation and storage. It is required of them that they must be adept in all branches of minor surgery and ordinary dental operations, application of bandages, dressings, etc. The whole charge of the dispensary devolves upon the steward, he must fill all prescriptions for patients in and out of hospital, and is responsible that medicines for those in hospital are administered at the hours ordered. In many instances he is called upon to prescribe as well as dispense. In one instance to my knowledge, at a garrison where the medical officer was only at the post at intervals, owing to other duties some distance away, the steward labored through three epidemics among the children at the post, attending those of officers as well as men, and having as high as eighteen cases under care at one time, and to the satisfaction of the patients as well as the surgeon. Now for these duties, which are not few or light, a hospital steward receives thirty dollars monthly, and allowances but little better than a private soldier. He is an enlisted man, and is compelled to look among enlisted men for associates. He is looked down upon by the officers and must pay them the most subservient homage, although he may be the steward's inferior in length of service, education, and, in many instances, gentlemanly qualities. In fact, in some posts his position is unendurable. He is a gentleman by education, and is compelled to look for associates and friends among those who, as a general rule, are far below him socially, or be without either. His professional acquirements are ignored, and he is classed among the "hewers of wood and drawers of water"—a mere *thing*, to be used and cast aside until further needed. For services which in civil life would bring him a handsome income, in the army he is compelled to render for a laborer's pay.

Every staff department in the army are more liberal to their subordinates than the medical, while none require one-half the qualifications it does.

The navy has recently recognized the "Apothecaries" (the grade identical with that of steward) by an order that allows them *sixty-four* dollars a month and the usual allowances, and for lighter duties, as he has no hospital establishment to look after, no large stock of medicines, etc., to care for, and the *very largest* part of the steward's duties he knows nothing of—I speak of the prescriptions filled for the wives and children of officers and men. This is a constant source of labor to the steward, there being four times as many prescriptions written for them than for the men of the command.

The apothecary has also the privilege of wearing citizen dress, and has a neat and tasty uniform that does not render him liable to be mistaken for a Fenian field marshal by the quantity of green trimmings on them.

Will not some one stand the champion of the stewards and represent their case to Congress? All they ask is rank enough to secure the treatment of gentlemen, and a remuneration corresponding with the knowledge required and labor rendered. They ask to be recognized as a corps of gentlemen, not mere laborers. CADUCEUS.

Obituary.

ERNST KRACKOWIZER, M.D.

THIS well-known and universally esteemed surgeon died at his summer residence at Sing Sing, N. Y., on the 23d of September, of peritonitis, following typhoid fever. Dr. Krackowizer was born December 3d, 1821, in Spital am Pyhrn, in the Archduchy of Upper Austria, and attended school in Kremsmünster, in the same province, from 1828 to 1831, continuing his studies in the Gymnasium and Lyceum of the same place for eight years. In 1840 he commenced the study of medicine at the University of Vienna, from which, five years later, he received the degree of Doctor of Medicine, one year of the time having been spent at Pavia, in Lombardy, Italy. The next two years were spent at the Institute for Operators, under the direction of Dr. F. Shuh, Professor of Surgery in Vienna—this Institute of Operators being peculiar to the Austrian monarchy. Every two years each province enjoys the right of sending two doctors of medicine, who, by a previous theoretical and practical examination, have shown that they possess more than a common knowledge of surgery and aptitude for operating. These, being formed into a class, receive private instruction from the professor of surgery in operating on the cadaver during the first year, and during the succeeding year of their pupilage perform operations on the living subject at the surgical clinic before the students of the university. After completing this course of practical instruction he was appointed assistant to the surgical chair, but was soon compelled to flee from Austria, on account of the termination of the German Revolution. Dr. Krackowizer made an effort to establish himself as lecturer on surgery at the University of Tubingen; but, in consequence of his political antecedents the ministry refused to approve the nomination of the medical faculty. For a time he travelled in European countries, but in 1850 he emigrated to the United States, arriving in New York on the 28th of June. He first established himself in Williamsburgh, Kings county, N. Y., from whence he removed to New York City in the fall of 1857. He resided for the next five years at 49 Amity street, afterwards at 16 West 12th street, and still more recently at 138 W. 34th street. During his residence in Williamsburgh he edited, in connection with Drs. Roth and Herzka, the *New Yorker Medizinische Monatsschrift*, which however, continued but one year. The year before his removal to this city he was appointed Physician to the Brooklyn City Hospital. In New York he held similar appointments in the German Dispensary and Hospital; in the Mount Sinai Hospital; in the old New York Hospital, and for a short time in 1874 in Bellevue Hospital, previous to the recent reorganization. He was a member of the Medical Society of the County of N. Y.; of the N.Y. Academy of Medicine; of the Pathological Society; of the Medical Library and Journal Association; of the N. Y. Physicians Mutual Aid Association, and of the N. Y. Society for the Relief of Widows and Orphans of Medical Men, in most of which he had been an office-bearer, and in all an active member. He was Honorary Member of the N. Y. Public Health Association; Member of the American Medical Association, and, at the time of his death was one of the delegates of the Academy of Medicine to the State Medical Society.

Aside from the numerous cases presented by him at the Pathological Society, reports of which have appeared in the *Amer. Medical Times* and THE MEDICAL RECORD, we are able to refer to a few more elaborate papers: A Case of Staphylorraphy; Treatment of Habitual Scoliosis; Remarks Concerning Syme's Amputation at the Ankle-Joint. While the Surgical Section of the N. Y. Academy of Medicine was in active existence, he prepared several subjects for discussion, *e.g.*, Resection of the Knee; Treatment of Gunshot Fractures; Tracheotomy in Croup; The Operation for Hare-Lip, and he was selected to open the discussion which took place before the Academy on Pyæmia, and the American Medical Association, in 1867, appointed him to report on Local Anæsthesia.

Another feature of Dr. Krackowizer's life was the earnestness with which he interested himself in the political questions of this day. Few among the German population of this city had so great an influence in the party with which he allied himself, and none were more distinguished for unwavering probity and honor.

He had few equals as a physician or surgeon, and when he joined in the discussion of questions which were brought before societies whose meetings he attended, the unvarying attention with which his few and generally practical remarks were listened to was an indication of the value his professional brethren placed upon them.

Although his practice was extensive, his habits of benevolence prevented the accumulation of any considerable fortune. He leaves behind him many who will remember him as a benefactor in the broadest sense.

At a meeting of the Medical Board of the New York Hospital, held September 24th, 1875, the following resolutions were passed:

Whereas, It has pleased an inscrutable Providence to remove from his sphere of usefulness in this world, in the prime of manhood, and the fulness of his powers, Dr. Ernst Krackowizer, our late associate in this Board; therefore,

Resolved, That in the death of Dr. Krackowizer this hospital has lost one of the ablest counsellors and most accomplished surgeons that have ever adorned its staff.

Resolved, That as his associates we are called upon to mourn the loss of one whose personal character and exceptional attainments and ability have always commanded our highest admiration and most implicit confidence.

Resolved, That the death of our lamented colleague creates a void in the ranks of our profession which will be long and deeply felt, and that the example of his loyalty to his high calling, his rare attainments and rich experience have contributed in an eminent degree to elevate the standard of professional excellence in this community.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased, and be published in the medical journals.

At a meeting of the Board of Directors of the Mount Sinai Hospital, held Sept. 26th, 1875, the following preamble and resolutions were unanimously adopted:

Whereas, It is with heartfelt regret that we have learned of the death of our esteemed and respected friend, Dr. Ernst Krakowizer, who for the past sixteen years has been attached to the medical staff of this institution. In view of his great ability and faithfulness be it

Resolved, That we deeply deplore the loss of Dr. Krakowizer, whose services for a long period of time have been of inestimable value to this Hospital. We recognize his fidelity to duty, the super-eminent character of his services, his wise counsel and amiable disposition.

Resolved, That we tender to his widow and family our heartfelt sympathies for this great affliction they have been called upon to sustain.

Resolved, That this preamble and resolution, signed by our president and secretary, be published, and a copy forwarded to the family of the deceased.

E. B. Hart, *President*.

N. Littauer, *Secretary*.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Sept. 18th, 1875, to Sept. 25th, 1875.

Huntington, D. L., Assistant Surgeon.—By S. O. 192, c. s., A. G. O., Sept. 22d, 1875, assigned to duty as Attending Surgeon at the Soldier's Home, near Washington City.

Phillips, H. J., Assistant Surgeon.—By S. O. 188, Hdqrs. Mil. Div. of the Atlantic, granted leave of absence for two months, on surgeon's certificate of disability.

Taylor, M. K., Assistant Surgeon.—By S. O. 179, Hdqrs. Dep't of Texas, assigned to duty as Post Surgeon, San Antonio, Texas, to date Sept. 1st, 1875.

O'Rielly, R. M., Assistant Surgeon.—By S. O. 187, Hdqrs. Mil. Div. of the Atlantic, granted leave of absence for one month.

Wilson, W. J., Assistant Surgeon.—By S. O. 190, c. s., A. G. O., Sept. 20th, 1875, granted leave of absence for one year, with permission to beyond sea.

NAVY.

Sept. 21st.

Penrose, Thomas N., Surgeon.—Detached from the practice ship *Constellation*, and placed on waiting orders.

Boyd, J. C., Assistant Surgeon.—Detached from the practice ship *Constellation*, and placed on waiting orders.

Painter, J. E. R., Acting Assistant Surgeon.—Ordered to duty in charge of medical stores at Nagasaki, Japan, per steamer of 30th inst. from San Francisco.

Sept. 23d.

Pearsons, Remus C., Assistant Surgeon, has reported his return home, having been detached from the storeship *Onward*, at Callao, Peru, and has been placed on waiting orders.

Seigfried, C. A., Assistant Surgeon, has reported his return home, having been detached from the *Richmond*, South Pacific Station, and has been placed on waiting orders.

Sept. 24th.

Bradley, George P., Passed Assistant Surgeon.—Ordered to the Navy Yard at Norfolk, Va.

Weekly Bulletin of the Meetings of Medical Societies.

Monday, Oct. 4th.—N. Y. Neurological Society, College of Phys. and Surg., cor. 23d st. and Fourth av.

Thursday, Oct. 7th.—N. Y. Academy of Medicine, 12 W. 31st st.

Friday, Oct. 8th.—N. Y. Medical Library and Journal Assoc., 107 E. 28th st.

Nomination of Officers for the County Society.—At the meeting of the Medical Society of the County of New York, Monday evening, the following nomination of officers for the ensuing year was made, to be voted on at the Annual Meeting in October. *President*, H. B. Sands (by J. C. Peters), T. Addis Emmet (by C. S. Wood), J. C. Peters (by J. O'Sullivan). Dr. Peters declined to serve, and moved the closure of the nominations. *Vice-President*, T. Addis Emmet (by J. C. Peters), J. C. Peters (by J. O'Sullivan). Dr. Peters declined to serve, and moved that the nominations be closed. *Recording Secretary*, A. E. M. Purdy (by Hanks). *Corresponding Secretary*, F. A. Castle (by Hanks). *Treasurer*, H. P. Farnham (by Dr. Chadsey). *Censors* (five to be elected), H. T. Hanks (by W. T. White), Charles Heitzman (by Tauszky), Charles P. Russell (by ——), J. C. Peters (by Hanks), J. E. Janvrin (by Castle), Paul F. Mundé (by Hanks), William T. White (by Purdy), E. Eliot (by Farnham), F. V. White (by ——), C. S. Bull (declined to serve), Charles Packard (by ——), Edward G. Janeway (by ——), C. M. Allin (by ——), T. T. Sabine (by ——). Dr. Farnham moved the nominations be closed.

Delegates to State Med. Soc. in place of Dr. A. Jacobi, elected permanent member: T. H. Satterthwaite, Beverley Robinson. William T. Lusk, L. D. Bulkley, C. C. Lee, A. McL. Hamilton.

Correction.—In the list of teachers in the medical schools included in the table on page 636 of The Medical Record for September 18th, the following corrections need to be made. H. E. Webster's name should be entered as Professor of Physiology, instead of George T. Stevens; and the name of J. V. Lansing, as Professor of Theory and Practice of Medicine, the latter having been entirely omitted.

In the "Order of Lectures," Prof. A. B. Crosby should lecture on Wednesday, Thursday, and Friday at nine o'clock, and Prof. W. T. Lusk on the remaining days of the week at the same hour.

Original Lecture.

ON THE TREATMENT OF TYPHOID FEVER.

By W. H. THOMSON, M.D.,

PROF. OF MATERIA MEDICA AND THERAPEUTICS IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

Lecture I.

Gentlemen:—We said in our last lecture that acute diseases had many of the characters of accidents in their nature, course, and termination. Chronic diseases, on the other hand, are most commonly due to inherent vices in the constitution itself. The human system is endowed with remarkable powers of repair in the case of accidents, and the reparative processes are definite in their character and in the periods necessary for their completion. In keeping with this fact we find that acute diseases are commonly recovered from by regulated processes, which are frequently as well marked and self-limited as the steps in the mending of a broken bone or the healing of a wound. Chronic diseases, on the other hand, like cancer, epilepsy, or phthisis, often seem to rise spontaneously, or in many cases of unfortunate families they cannot be prevented, be they guarded against never so carefully. And moreover, in that one word chronic lies the unwelcome intimation that the system cannot, by its own powers, recover from them, but needs help from outside, if help there be.

An excellent illustration of what an acute disease is, and also how an acute disease should be managed until the system can recover itself from it, is to be found in the case of typhoid fever. The cause of typhoid fever, in the first place, is as foreign to the congenital tendencies of its victim as a railway collision; for an inhabitant of a coral island in the Pacific, who has not yet come into communication with the outside world, is no more likely to be prostrated by it than he is to be run over by a locomotive. Moreover, when this fever does prevail, it is not the infirm nor the aged who are the most liable to be attacked by it, but rather, in all countries, young adults, and those who have enjoyed the best average degree of health. Lastly, when it is once fairly developed in a case, there is no more use in attempting to cast it out than there would be in planning to unite the ends of a broken radius by artificial cement. We must wait for the system to deal with the fever as it does with a fracture, and our whole duty is restricted to the following aims: 1. To watch against special hindrances or complications in the normal course of the affection; and 2. To assist the suffering system in its own efforts and processes of restoration.

First, therefore, what are these special hindrances or complications which you are likely to meet with, and therefore should be on the watch for, in guiding a typhoid-fever patient through his illness? Keep in mind the illustration which I used about the part to be borne by the physician in the management of a case of acute disease, that it is similar to that of a cool-headed man with a runaway horse, namely, that he had better not try to match his strength against the horse, but rather keep him in the middle of the road. You should know the road well beforehand—that on this side is such a ditch, on the other such a turn or such a stump, and by a timely pull on this rein or on that avoid each special danger, until the wearied animal slackens his pace of his own accord. Those dangers in the case of typhoid fever I would class as follows:

1. Dangers from the pyrexia or fever heat.
2. Dangers from starvation.
3. Dangers from self-poisoning, due to imperfect or perverted excretions.
4. Special dangers from morbid agencies, such as malarial infection, visceral inflammation, etc.
5. Accidents, such as from intestinal hemorrhage, perforation, etc.

1. PYREXIA.

This we put first because in no acute affection are the special disorders caused by a fever temperature alone, so likely to be met with and to kill as in this complaint. If I were asked to name the greatest contribution to practical medicine from the researches of modern pathologists, I would have little hesitation in citing this of the kind of textural damage caused by a rise from the normal degree of blood heat. Be the cause of fever heat what it may, yet that heat will occasion certain definite alterations in the body, proportioned to the *amount* of that heat. I do not refer by this statement to the degree at any one time in the thermometric rise, so much as to the sum-total in the course of each particular febrile affection. Those changes may be briefly described as consisting in a destructive alteration of the proper cells of the tissues affected, and in the properties of the blood. Thus the blood becomes viscid and sticky, and prone to be very dark in color. The voluntary muscles first become dry and deeper in color; then the fibrils granular, and then, thus losing their striated appearance, fatty or waxy, breaking easily, and ultimately wasting away, in some cases to an extreme degree. Just such a change also appears in the muscular tissue of the heart. In the liver, the hepatic cells break up into similar granular and fatty masses. The kidneys also undergo a precisely analogous degeneration; while the lymphatic and ductless blood-glands, such as the spleen, etc., enlarge, become softened, and may end in being most extensively disorganized. An excessive blood heat, however, acts with special severity on the nervous pulp itself, as we might expect. In deaths occurring in the course of febrile affections, marked by an extraordinary rise of the thermometer, the dying itself is by coma; but in all cases where the fever has been both high and long-continued, we find very frequently fatty degeneration of the nerve-fibres, with softening and pigmentary alterations in the ganglion cells; very commonly great cerebral œdema, and not infrequently actual atrophy of the brain itself indicated by diminished size of the convolutions.*

Now we infer that these and many similar parenchymatous degenerations are the direct results of high temperature, because they are to be found in a great number of different febrile complaints, such as pneumonia, cerebral rheumatism, scarlet fever, typhus, etc., in proportion to the degree of heat which has been developed in their course; and likewise in no complaint more than in typhoid fever itself. But in death occurring in this disease without any antecedent excess of heat above the average,—as, for example, in some cases of intestinal perforation,—we will find them absent, or less pronounced, according to the same condition. How much of the symptomatology of typhoid fever proceeds from these changes we will have occasion to note more fully as we speak of the measures which we should adopt to avoid destruction from pyrexia. The next great danger is

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* Hoffman, cited by Liebermeister, on Typhoid Fever, Ziemssen's Cyclop., vol. i.

2. STARVATION.

It is strange to what a degree this peril of typhoid fever is overlooked. Of course you rarely read any observations on the treatment of this affection without finding recommendations to give proper nourishment to the patient: but the special need for attention to this indication, and an explanation of the causes of the starvation which the disease produces, are but imperfectly described. Yet it is always doubtful how many of the symptoms which are enumerated as characteristic of its course may not be due directly to the inability induced by it on the part of the alimentary canal to prepare food enough for the suffering system. I have often asked myself the question, Suppose a healthy adult were strapped down in bed for fourteen, twenty-one, or twenty-eight days, and allowed nothing but swallows of that innutritious liquid, beef-tea, what symptoms would be likely ere long to be present? Let a man go without eating for only four days and he will look as if he had been suffering from a wasting fever; if for a longer period, then the same restlessness and inability to sleep, the same rapid, weak pulse, the same forms of muscular and glandular degeneration, the same tremor of the hands, and perchance the same muttering delirium, or even the same diarrhœa, with ulceration of the bowels, which have been regarded as pathognomonic of typhoid fever: all these have repeatedly been shown to occur as symptoms or results of simple starvation. Now it is well in this connection to recognize the true genesis of a fever starvation, for it proceeds directly from the derangement of all secreting glands by a rise in the temperature of the blood from the normal point to which they have been adjusted for the performance of their functions. There can be no doubt that one of the chief purposes subserved by that remarkable power of the living body of maintaining a uniform thermometrical degree, no matter how extreme the fluctuations of external temperature may be—so that the same blood heat is noted on the arctic shores as in the hottest countries of the globe—is to maintain an unvarying point of distillation, as we might term it, from the blood, for the vast glandular apparatus. The secretions of glands are all very complex organic fluids, and we know that even in the comparatively rude processes of our laboratories, nothing is more important in the preparation of organic fluids than a careful attention to the point of distillation: for let that point be passed but a few degrees and the products will be very much modified, if not entirely changed from what we intend. Now, whenever we note a rise of blood heat, from whatever cause, we will also simultaneously note a perversion or a suppression of glandular secretion throughout the body. At first the skin becomes dry and parched, there is thirst in the mouth, and constipation of the bowels, with scanty urine. Meantime the patient becomes incapable of digesting solid food, and if this be administered to him it causes distress and aggravation of his symptoms, not because meat and such like articles are too "heating," as was once supposed, but simply because there are no digestive secretions in the alimentary canal to deal with them, so that for the time being solid food acts as if it were a foreign body to that canal, and can occasion nothing but harm from its presence. The digestive powers of the patient are reduced, during the continuance of the fever, to more than the weakness of infancy, and hence it becomes one of the most imperative duties of the physician to deal intelligently with the complications which arise from this source with special frequency in the case of typhoid fever, also, owing to its own marked tendency to affect, primarily, the glandular apparatus of the intestinal tract. Another difficulty, proceeding from the same cause, is that the absence of the normal digestive juices in this case deprives the system of the natural antiseptics for preventing fermentation and decomposition of the matters present in the stomach and bowels. Both the gastric and intestinal juices, when added even in moderate quantities to meat, milk, and other putrescible substances, will keep them from fermenting in the open air for considerable periods. Now I can scarcely resist the conclusion, especially as it seems supported by the effects of certain therapeutical means which I will soon detail, that a great proportion of the diarrhœa, and of the intestinal ulceration of typhoid fever, is owing to the irritation caused by the acrid fermented matters present in the bowels, and therefore that measures specially conducive towards preventing such fermentation, by the administration of artificial digestive solvents, should be systematically employed during the whole course of the disease.

3. DANGERS FROM SELF-POISONING, ETC.

Arrest of general secretion by altered temperature of the blood, of course involves the depurating or excreting glands equally with those of the alimentary canal concerned in digestion. A necessary result of this complication is, that the blood soon becomes charged with effete matters, whose retention must ere long produce symptoms of poisoning. In those febrile affections whose course is marked by a sudden defervescence, or what is usually termed a crisis, we sometimes have a fall take place in the fever of five or more degrees in a few hours, and, coincident with this, not infrequently there supervenes a free discharge from the bowels, or a great increase of deposits of urates in the water, or a profuse perspiration. Formerly these "critical discharges," as they were termed, were regarded as efforts on the part of the system to throw off or eliminate the poison of the fever, and unfortunately, acting upon this imaginary hint from nature, the profession was at one time possessed with the idea that a fever patient should be vigorously purged, sweated, and made to urinate freely, or worse yet, salivated, till, as Boerhaave directs, he should expectorate two pounds of saliva a day! The disastrous sway of this elimination theory probably has more to do with the successful rise and progress of homœopathy than any one influence chargeable to the regular profession. We now know, however, that the simple explanation of these critical discharges in fevers is, that the previous defervescence enables the emunctory glands to resume their suspended functions on the return of the blood to its normal temperature, and that, owing to the large amount of accumulated excrementitious matters, their action for a time is unusually brisk; for that it is not an act of elimination of the special poison is shown by the fact that the discharges do not contain anything diverse from the ordinary products of those secretions; for the urine in scarlatina, for example, does not contain any scarlatinal agent; that, on the contrary, still lurking in the skin, the same as in small-pox. Meantime it is the physician's part to guard against self-poisoning by a judicious and moderate employment of measures calculated to keep the emunctory glands up to their accustomed duties, and we will show that even in typhoid fever such cathartics as calomel, used with discrimination, and a careful attention to the functions of the skin, will have a marked effect in lessening the rate of mortality from this fever, a fact whose explanation I believe to be in the lessening of the proportion of those ingredients in the circulation which afford the best pabulum for the reproduction of the fever virus. This indication is peculiarly pressing in the case of patients past middle life, for as the glandular structures are the soonest of all others to grow old, so all fevers, and notably typhoid, are proportionately more fatal as age advances, and it is unquestionable that many of the peculiar nervous symptoms developed, even at comparatively low temperatures, in such patients are largely the effects of poisoning by retained excretions.

4. SPECIAL DANGERS, ETC.

As to our fourth class of dangers, from the operation of other morbid agencies modifying or complicating the course of this malady, I would state that the existence of many chronic diseases, such as phthisis, nervous affections, etc., do not especially influence its course to the degree we might expect. But there is one cause of disease especially prevalent in this country which seems to act along with a typhoid infection to such an extent as materially to affect its development and course, and that is the ague malaria. So commonly is this the case that some physicians maintain that we have a distinct typho-malarial fever, which partakes equally of the characteristics of both fevers. At any rate, you will frequently meet in our hospitals in New York, as well as in private practice, with cases of fever marked by the same enteric or abdominal symptoms as typhoid, including also the characteristic intestinal lesions found after death, and presenting the same eruption during life, but in which the course of the fever, as marked by the thermometer, is quite different from that of a typical case of typhoid. These are not by any means necessarily severer cases than those of ordinary typhoid, as I have had frequent occasion to note, especially in my wards at the Roosevelt Hospital, but in some instances they are. I have lately lost a patient, a young lady, who, after suffering from ague for some time, contracted typhoid in an exceptionally severe form. In her case the highest temperatures, instead of occurring as usual in the afternoon or evening, always occurred in the early morning between 4 and 6 A.M. After guiding her through the typhoid for four weeks, the fever, as expected, began to show signs of decline, when I was suddenly disappointed by a great rise one morning, which continued some thirty hours, and then began to subside; seven days afterwards another morning rise occurred, then in seven more days another, and then, for the fourth hebdomadal, another, with the same suddenness, and this time occasioning fatal collapse on the fifty-fourth day of her illness.

Such cases show the need of a careful review of your thermometric observations, so that when a marked periodicity is revealed in the recurrence of certain symptoms, you should recognize who the enemy is that is making mischief, and deal with him appropriately. We will now leave the subject of the prophylaxis of the accidents of typhoid, above alluded to, to be considered under the head of the treatment of the sequelæ of the disease, and pass at once to the measures to be adopted for neutralizing the dangers arising from the first-named source, namely, the pyrexia.

MEASURES FOR SUBDUING THE PYREXIA.

To deal with this danger it is as absolutely necessary to be provided with one instrument as it is to have an eye for seeing where you are going, and that is the thermometer. In the case of some acute diseases the value of the indications which the thermometer affords has been much exaggerated. In diphtheria or in meningitis, for instance, its importance is very secondary. But with typhoid fever I have felt a pity for myself and my patients when I remember how in former years I treated hundreds of cases of it in the Quarantine Hospital, in ignorance of the information which the thermometer can impart. By the thermometer you can, in the first place, detect that you have typhoid to deal with, and then soon come to a conclusion whether you are going to have a severe contest with it or not. But as we have no time now to diverge from the strictly therapeutical aspects of our topic, I will say that it is in the recognition of the special dangers to be apprehended from the pyrexia in each case, and of the best methods for combating those dangers, that you will find it both invaluable and indispensable. By it alone you may be able to know that the patient is on the brink of destruction from a literally burning brain, when others are not aware that such peril is near. I was once asked by a physician of extensive practice, and much my senior, to see a young man who had been ill seriously more than a week with this fever. I was assured that there was but a moderate amount of fever, and yet the patient had become unaccountably nervous and at last suddenly comatose, though the surface was cool and the pulse low. I found cool hands and feet, sure enough, but my thermometer in his axilla rose to above 107° F., and in less than half an hour afterwards he died. It has been since the employment of this instrument becoming prevalent in the profession that the great advance has been made in the knowledge of the mode of causation of those fatal lesions in febrile affections which we have alluded to, and hence has furnished us with one of the chiefest indications for treatment. It is not too much to say that the thermometer, therefore, has changed the place of typhoid fever from ranking as one of the most fatal of acute diseases, almost to the low level of measles, and added to the gratifying assurance of the physician that his profession offers him something better than the rôle of a sagacious gazer at his patient, such as the expectant school of twenty years ago were fain to make him. For not only do we now cast about for true apyretics, or fever-lesseners, but we have found them, and, moreover, by the thermometer we have found out how to use them as they should be used.

First among these, our present means for lowering fever heat and saving our patient's vital organs from its mischief, I would put the employment of external cold by means of packs, affusions, and baths. Considering the plain facts of the case, it is rather surprising that spite of the earnest advocacy of the English physician Currie, nearly two centuries ago, of the use of cold as an apyretic, the profession allowed its faith in drugs to go so far as to neglect its employment up to a late date. This may have been due, however, to the fact that until the thermometer revealed the true action of cold in fevers, this powerful agent may often have appeared to operate in a very perplexing and uncertain fashion, for its effects, after all, are not so simple as they might appear at first sight. To begin with, the initial effect of immersing the body in a cold bath is to *raise* the temperature, as indicated by the thermometer in the rectum and under the tongue, and not to depress it; in other words, actually to increase rather than to decrease the fever.

This rise in a cold bath is noticeable both in health and in fever, and I have known it to amount to a full degree. Hence, if the patient is removed too soon from the bath, before the continued operation of the cold has had time to overcome this initial rise in the heat, on getting him back to bed you are disappointed at finding that his fever seems to be worse than ever. Continue the immersion, however, long enough, or add ice till the temperature of the bath falls from, say 70° F. to 65° F., or 62° F., and sooner or later, according to the severity of the case, the fever gives in, and the body heat begins to sink. It may take a long time, for I once had a typhoid case in which the patient lay in a bath of 62° F. to 65° F., up to the neck, with an ice-bag on the head, for fifty-four minutes before the thermometer fell a fraction.

Now, when the thermometer begins to fall, renew your observations of it every two minutes or so, that is, put it back under the tongue two minutes after you have withdrawn it for noting the register, and let it remain three minutes *in situ* each time. If it sinks rapidly, that is, if two degrees are lost in five minutes, or three degrees in ten minutes, then, no matter what the figure at which it still stands, you ought to remove your patient without delay to his bed. Certainly do not think of keeping him there till the temperature falls to near the normal point in a very cold bath. The reason for this rule is, that the temperature goes on sinking after the patient is removed from the bath, often for more than an hour, and the longer generally in proportion to the length of the immersion. Hence he may pass from the extreme of fever to the extreme of collapse, from prostration by cold, and some cases even of death from this cause have been reported in England, following the employment of cold against cerebral rheumatism. But there is not the least danger of such a mishap in typhoid, if only you follow the directions which I have laid down, because after a considerable experience I believe I can pronounce cold apyretic baths among the safest therapeutic agents we possess, if properly employed.

If you aim at bringing down a fever from 104° F., or 105° F. you should be content with the figure 101° F. or 100° F. at the most in the bath, for the thermometer will then sink to 99° F. or 98° F. afterwards. If, however, the time to produce a fall has been prolonged, say between twenty minutes and half an hour or more in the bath, then I would remove the patient while the thermometer stood at 102° F., for the effect of prolonged cold with many patients is to make them feel uncomfortable from it for some time, even though the heat does not sink afterwards below 99° F., and occasionally I have been obliged to use hot bottles to the feet, and give several swallows of brandy and water, because of seeming prostration, with the thermometer still at 99½° F., under the tongue. If the temperature falls in the bath rapidly after only a short immersion, as I have seen it do in less than ten minutes, from 106° F. to 99° F., then you may be pretty sure that it cannot be typhoid fever in its first week, but some other complaint. The idea of such a plunge, however, you will always find to be more or less terrifying at first to the patient or to the friends. It appears to be so heroic a style of treatment that it requires a good deal of confidence in you to have them acquiesce, and a confident demeanor on your part in recommending it. The first few baths the patient generally objects to moreover; but very soon the good effects of this measure are so apparent in lessening the worst accompaniments of the fever, that not only do the friends cease to object, but very often towards the close of the fever you will become annoyed with the importunities of the patient for more baths than you may deem prudent. I have even held out the prospect of an ice-water bath as a reward for good behavior in taking food or medicine. Where the patient dreads the first impression of cold, Ziemssen's plan is a very good one, namely, to commence with a bath about 80° F., and gradually cool down, by adding ice, to 65° F. The patients frequently shiver a good deal in the water, but if the heat still marks high you need not pay much attention to this symptom. Meanwhile, it is always advisable to douche the hot head with pitchers filled from the bath, only do so gently, and hold the pitcher but a few inches above the head, because, in distinction from other douches, you are not seeking here the powerful irritation of the blow of falling water, but refrigeration simply, and you will find this measure specially grateful in the beginning of the disease, during the period of headache, as well as in those cases where the delirium is very active. The cold pack is much less effective than the cold bath, but towards the decline of the fever, or when the patient is too weak for moving, it becomes very useful. My usual plan is to wrap the patient first in a sheet wrung out of simple cold water, and then over this to lay a sheet wrung out of ice-water, this second sheet to be renewed as often as it becomes warmed, but not the first, and to continue the application until the required decline has been attained.

Now, what are the effects of this treatment, and how often shall we prescribe the dose? In severe cases of typhoid fever you will generally note the refrigeration to last about an hour, and then the thermometer commences slowly to rise again, so that by two or three hours it reaches its former point. If so, then I would recur to the bath again every two hours, or twelve baths if possible in the twenty-four. In such a case, it may be, that nothing but this measure will save the patient's life. But much more commonly you will find that you have broken the high range for three, or four, or six hours, or even for a day, so that you need but four, three, or two baths. The thermometer alone is to be your guide, for you should begin with a resolution that you are not going to allow the patient to have a fever above a certain point, say 102° in the morning, and 103° in the afternoon, or still lower according to the nature of the case. Hence in severe cases it is just as essential to give the baths during the night, or during the day, and you will never have cause to regret such pertinacity on your part in following up the pyrexia for the whole time. The symptoms of the patient will soon show you that you are doing well by your perseverance. After the bath the patient is a great deal quieter, his delirium in nearly every instance either improves or passes off altogether, to return only with the renewed rise of the thermometer. The breathing becomes easy and natural, the pulse improves, and often the sufferer drops into a quiet sleep accompanied by a gentle perspiration. But what is of special significance is, that the course of the thermometric range itself of the fever, in the majority of patients, becomes permanently lowered to a point at which the chief perils of the disease will hardly be met with. You seem to be pursuing a different road from the well-known track of typhoid fever. Instead of those numerous features, such as clouded intellect, muttering delirium, subsultus, etc., which, when they occur in the course of other febrile complaints, we may hear that the patients have lapsed into the typhoid state, your cases will frequently remain with but little change from day to day, through the second and third weeks, from their symptoms at the end of the first week, and, to the great relief of the attendants, but rarely pass their urine or motions in bed.

(To be continued.)

A College of Pharmacy is to be started in Boston. Money has already been pledged, and the nucleus of a library of standard chemical and pharmaceutical books has been obtained.

Original Communications.

PERFORATING ULCER OF THE DUODENUM.

By DANIEL F. COLLINS, M.D.,
NEW YORK.

There is scarcely any disease coming under the observation of the physician of which so little is known as to its origin as that of perforating ulcer of the duodenum, the chief causes of our ignorance being that the disease is of comparatively rare occurrence, and when it does present itself it is not always recognized. The principal works on diseases of the digestive system are almost silent on this subject, merely mentioning the existence of such a disease and its very fatal nature. Such being the state of our knowledge respecting this malady, it seems important that all cases of it coming under our observation should be carefully considered. The following case will be found both instructive and interesting in many respects:

Jacob Wenzel, aged thirty years, German, of low stature, and stoutly made, while working in a factory was hurt by the falling of a piece of lumber. He was confined to his bed for one week with pains in his stomach, hips, and chest, from which he said he completely recovered.

On June 20th, 1874, about one year from the date of the above occurrence, he was suddenly attacked, while at work, with pain in his stomach, vomiting, and weakness, and was obliged to leave off work on that account. On June 23d, three days after he became sick, I was called to see him in haste, as the messenger said he was in a dying condition. On arriving at his house I found him sitting up in a chair, breathing with difficulty, face pale, skin of a dirty yellow color, and quite cold and clammy to the touch. Pulse 60, and very weak. He was vomiting every few minutes, and could not retain even a spoonful of cold water on his stomach. On examination I found his abdomen very much distended and hard, and on pressure being made he complained of great pain over his stomach. He stated that his bowels had not moved for four days, although he had taken medicine, and he seemed to think that the cause of his trouble.

After ordering some medicine to check the pain and vomiting, and an injection to relieve the loaded condition of his bowels, I cautioned him against taking large drinks of ice-water and milk, which he had been doing all day, and being unable to retain anything on his stomach, the vomiting caused by these drinks very much increased his suffering and danger. Next day word was sent to my office that Wenzel got out of bed about six o'clock in the morning, and walked across his room and drank nearly a pint of iced milk, and in returning back to bed fell on the floor and expired in a few seconds.

At a post-mortem examination, nine hours after death, I made the following notes: Body muscular and well developed; skin yellowish color; abdomen very much distended and hard. On opening into the abdominal cavity a large quantity of purulent serum escaped, and the intestines seemed floating in it. Heart rather above natural size, but perfectly healthy; lungs presented a normal appearance; stomach slightly congested, particularly near the pyloric orifice. About three inches below the pylorus, on the anterior surface of the duodenum, was a perforation half an inch long by one-eighth of an inch wide. The edges of this perforation were even, and presented but a slight trace of inflammatory action; the appearance of the intestine around the perforation was natural. The intestines contained a quantity of fetid fluid, the smell from which was almost unbearable; liver slightly congested; kidneys healthy.

Before entering into a consideration of the above case the following extracts on this subject from the principal works on the practice of medicine will not be out of place. Dr. Flint, in his work, makes the following remarks in relation to this disease:

"It is a curious fact, ascertained by Curling, that a sloughing ulcer is apt to take place at the upper part of the duodenum within a few days after the occurrence of a severe burn on the skin; perforation may occur under these circumstances. Ulceration of the duodenum is not a constant effect of a severe burn. Wilkes states that he failed to find it in several cases which had come under his observation."

In Tanner's Practice of Medicine, page 430, the following account is given:

"Perforating ulcer of the duodenum presents many of the symptoms of an ulcer of the stomach, but in a mitigated form, consequently fatal perforation occasionally takes place suddenly when the patient has made but little complaint:" and Dr. Tanner goes on further to state that this ulcer is often found in cases where death has resulted from severe burns. In Bennett's Practice of Medicine the only mention made of this disease is the history of a case, page 789, which resembles in so many particulars that of Jacob Wenzel, that I quote its important features:

"James Abernethy was admitted to hospital with a large swelling and ulceration of his left hand. After admission his urine became like porter, and his feet and legs began to swell; these symptoms were preceded by rigors, but he complained of no pain. The œdema continued to extend, and in three weeks dyspnœa came on. He had no appetite, but great thirst. Abdomen was distended and fluctuating; skin anasarcous, that over the back pitting on pressure; left arm from elbow down one mass of ulceration. This man was sick about a year, when he died." *Post-mortem.*—"Both lungs anasarcous, with coherent pleuræ, which, on being separated, the pulmonary texture broke up, being rendered soft by chronic pneumonia; liver showed signs of several calcareous concretions; kidneys pale yellow color, slightly mottled with vascular patches; on section of kidneys the cones were unusually congested. One inch below the pylorus the duodenum was perforated by a round ulcer, and around it were several patches varying in size from a three-penny piece to that of a shilling; the peritoneum contained about half a gallon of serum." Dr. Bennett concludes the history of the above case with the following remarks: "Following a prolonged ulceration of the arm, there supervened nephritis, general anasarca, and œdema of the lungs. What, however, constitutes a remarkable feature in this case is the presence of a chronic ulcer in the duodenum, which had not been manifested by any symptoms whatever."

The case of Jacob Wenzel resembles in many particulars the foregoing. In Dr. Bennett's case the patient lived a year from the date of his being attacked with ulceration of the hand, during which time he never complained of any trouble of the stomach or bowels, and if we admit that the injuries received by Wenzel from the falling of a piece of lumber upon him was the origin of his trouble, both cases were of the same duration.

Towards the end in both cases there was the same difficulty of breathing, thirst, and swelling of the abdomen. In Dr. Bennett's case the urine of the patient is described as like porter, and the skin as anasarcous. Nothing like this showed itself in Wenzel, as his water was perfectly normal, and there was no anasarca of the skin. These differences in the symptoms of the two cases will be readily explained by the post-mortem appearances, for we find in Dr. Bennett's case that the porter-like water, swelling, and general anasarca were the result of nephritis and chronic pneumonia; while in the case of Jacob Wenzel no such complicating diseases were present to produce these symptoms In neither of the above cases did the patient suffer any pain or uneasiness in the digestive organs from the commencement of their trouble until immediately before their death, although pain is an often recurring symptom in perforating ulcer of both the stomach and duodenum.

Dr. Budd, in his Treatise on the Stomach, states in a few pages devoted to the consideration of perforating ulcer of the duodenum, page 148: "The chief symptom of ulcer in the duodenum is pain in the situation of the ulcer, which is seldom constant, and which in most cases is felt only two or three hours after a meal, when the food is passing from the stomach into the duodenum. From the symptoms being usually much less severe than in ulcer of the stomach, the fatal perforation usually occurs with still less warning." The case of Wenzel is also instructive in a medico-legal point of view from the following circumstances: Wenzel, the day before he became sick, got some cathartic medicine at a drug store to relieve constipation. The medicine not having produced the desired effect, and he suddenly becoming sick, alarmed both himself and his friends, who believed that he had been poisoned by the druggist, and it was with difficulty that his friends could be made to understand the nature of his disease, and the innocence of the drug clerk. A good deal of discussion has taken place from time to time as to the primary seat of this disease. I think an examination of the collected cases will prove, first, that the perforating ulcer is nearly always found within the first three inches of the duodenum. Secondly, It is well proven that it is in this portion of the intestinal canal that the glands of Brunner are most numerous. Thirdly, In nearly all cases where death has been caused by this disease, an examination of the intestine has given ample proof of the enlargement and inflammation of these glands. On considering the above, there seems to be sufficient ground for the belief, that these glands are the principal and primary seat of the disease in question.

Prof. Geo. B. Wood, in his work on the Practice of Medicine, states (page 615) when considering the subject of duodenitis: "Perforation sometimes takes place from simple ulcer, as in the stomach from gastric ulcer, with fatal effect. The appearances are so similar to those in gastritis as not to require particular notice except in relation to the mucous glandules, or, as they are often called, the glands of Brunner, which are very numerous in the duodenum near the pylorus, and in inflammation of this viscus are apt to be enlarged, exhibiting sometimes elevated, irregular, almost continuous patches of considerable extent."

The above description of the appearance of the intestinal mucous membrane after death from duodenitis resembles the post-mortem appearances seen in Dr. Bennett's case very closely, both exhibiting the same irregular patches, etc., and should the condition of the intestine described by Prof. Wood have gone on until ulceration had set in, the post-mortem appearances in both cases would be identical. In an article published in the Cyclopædia of Practical Medicine, page 266, "On Organic Diseases of the Stomach," Dr. Houghton gives two explanations as to the mode in which inflammation is set up in the glands of Brunner. He says: "This form of ulceration arises at one time on their surface by their direct irritation and ulcerous absorption, while at others it seems to succeed upon their internal swelling from obstruction to their follicular orifices."

The above quotation explains itself. Dr. Houghton not alone holds that the glands of Brunner are the primary seat of the disease, but explains two conditions under which simple irritation may give rise to inflammation and ulceration in these glands. First, by irritation of the structure of the glands; secondly, by closure of the follicular orifices of the glands, and the distention caused by the collection of the secretion within the gland. This disease, unlike perforating ulcer of the stomach, seems to attack males much more frequently than females. It would seem that any occurrence tending to the irritation of the pyloric orifice or the upper portion of the intestinal canal may be looked upon as an exciting cause. The published cases of this disease go to prove that a large number of the victims were accustomed either to the free or immoderate use of alcoholic stimulants, and we may with little hesitation class alcohol as one of the principal causes of perforating ulcer of both the stomach and duodenum. This disease has also followed as a result of severe burns on the skin, but as yet no satisfactory explanation for this occurrence has been given. An anæmic condition of the system has been considered by many as one of the causes of this disease. This supposition is, I hardly think, confirmed by statistics bearing upon the subject, as in a majority of the cases I find reported, where death has resulted from the disease, the victims were found to be robust and in apparent good health. Perforating ulcer of the duodenum has been found in two or three cases where death has resulted from malignant disease of the uterus and appendages. Dr. Budd, "Diseases of the Stomach," page 151, relates the history of one case, a woman twenty-two years of age, who had "an enormous compound ovarian cyst of the right ovary." No intestinal disorder showed itself until a few days before death, when vomiting and purging suddenly set in. On a post-mortem examination being made, the condition of the intestinal canal was found to be healthy, except in the duodenum, where two large ulcers were found. Dr. Budd says: "The appearance of the uterus, as well as the recent occurrence of the intestinal disorder, indicated that the ulcers were of recent formation, and thus raised the suspicion that the tumor had in some way or other been instrumental in causing them."

239 East 34th Street.

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Newark Dispensary for Women.—A dispensary devoted to the treatment of the diseases of females has been opened at 466 Broad street, corner of Orange street, in Newark, N. J., of which the attending physicians are: A. Mead Edwards, William O'Gorman, Frank Wilmarth, and Miss K. Parker as assistant. Tickets have been issued to responsible persons, to be given to women in need of treatment and worthy of assistance from a charitable institution, on which the endorsement of the giver is asked, as a guarantee that the interests of the charity are being carried out in the manner intended.

A New Hospital in Paris.—A new hospital is to be opened toward the end of this year in the "Ménilmontant" quarter of Paris, from which the hospital is to be named. It is to consist of one hundred and fifty beds, and is to have a lying-in service attached. The quarter is one of the poorest in Paris, and is much in need of hospital accommodations.

DISLOCATION OF RADIUS AND ULNA OUTWARDS.

By W. C. C. ANDREWS, M.D.,

OF THE RESIDENT SURGICAL STAFF OF BELLEVUE HOSPITAL.

The following case is interesting chiefly in its rarity, and is recorded because it is one of the first, if not the first, of its kind reported by an American surgeon, viz., a pure and complete dislocation of the radius and ulna outwards. The latest American authority upon fractures and dislocations says that but eleven similar cases are on record, and all of the eleven occurred to French surgeons.

Gustave S., admitted to Ward 11, Aug. 12, 1875, 1.30 A.M., aged 17, single, U. S., engraver.

Patient is a strong, healthy youth, who fell from a shed two hours before admission. The distance fallen was only eight feet, and the substance fallen upon a manure heap. It was afterwards found that the manure covered a pile of stones, and was about one foot thick. Patient says that he struck upon his right side, the right arm lying beside and partly under him —the elbow being straight, or nearly so. The skeleton shows that the elbow must have been flexed at least 30° to admit of such a dislocation without fracture of the olecranon.

Examination immediately after admission showed a very characteristic deformity—simple inspection being largely diagnostic. As no swelling had occurred the bony points were so beautifully distinct that the only doubt was with reference to a fracture complicating the dislocation. One of our visiting surgeons, and nearly all of the hospital staff, examined the arm carefully and confirmed the diagnosis, which seemed unquestionable.

The forearm was at nearly a right angle with the arm—the hand resting upon the thumb in a position of forced pronation. The abrupt bulging of the forearm forwards and outwards was very marked. As usual in these cases, both the biceps and triceps were uncontracted and entirely flaccid. Externally the olecranon was easily felt—the finger slipping over its convexity and dropping into the great sigmoid cavity. This alone seemed to exclude fracture of the process, and the relaxed triceps, without any chip of bone in its substance, confirmed the supposition. Above, and to the inner side of the ulna, the round head of the radius was plainly felt, and rotated normally within the lesser sigmoid cavity when the hand was supinated. Projecting very strongly upon the inner side of the joint, and on a plane with the flattened posterior face of the arm, was the inner condyle. Both the epitrochlear process and the trochlear surface were distinctly felt, and the absence of fracture here easily shown. The outer condyle lay deeply beneath the head of the radius, and could only be detected upon firm pressure. Hard crepitus, indicating fracture, was carefully sought for, but could not be obtained.

The soft parts seemed to have escaped injury, excepting the capsular and lateral ligaments, which must have been extensively torn. There was but little swelling—no ecchymosis, and no appearance of rupture of muscles. The hand was warm, and did not feel numb nor sleepy to patient. Good pulsation existed in both the radial and ulnar arteries. The arm was laid comfortably in an open wire splint, and lotio plumbi et opii applied.

13th, 5.30 P.M.—Patient was thoroughly etherized to produce complete muscular relaxation. Fracture was again carefully looked for, but not found. An assistant made counter-extension from the humerus, another grasped the forearm, with his thumbs against the olecranon, the hand was then supinated and the forearm made nearly straight with the arm. Extension followed, during which the elbow was gradually flexed and olecranon pressed inwards, when both bones slipped readily into place, and the reduction was accomplished. Very little force was used. Reduction was accompanied by the usual soft snapping between the articular surfaces. For the third time fracture was looked for and not found. All the normal motions of the joint were restored and perfect, though somewhat loose. The head of the radius seemed very prominent and free in its movements, although it had always retained its natural relations to the ulna. Arm was replaced in sling, and lead and opium wash continued.

The rarity of this case seemed to justify the long delay of reduction, so that the visiting surgeons might all see and examine it. It is to be regretted that so many of these were out of the city, and that swelling and commencing ulceration through the tightly stretched skin over the internal condyle made further delay dangerous.

14th.—No signs of inflammation, but in anticipation of it a week's rest will be allowed the arm, with the constant application of lead and opium wash.

21st.—No pain nor inflammation. Daily passive motion.

28th.—Sling discontinued; arm of normal size; motions of joint nearly perfect, except flexion, which only extends to a right angle. Patient thinks that he can use his arm, and is anxious to go home.

30th.—The patient's notoriety has become too much for his modesty, and he has absconded.

Progress of Medical Science.

Coudereau's Operation of Total Ablation of the Uterus through the Vulva.—Dr. Coudereau describes an operation which he recommends for cancer of the uterus, and by which he claims to be able to remove the entire womb by the vulva without opening the peritoneal cavity. The operation consists in drawing the uterus forcibly downwards, by means of an instrument which he calls an endoceps, aided to a certain extent by the knife, and finally enclosing the structures above the prolapsed womb in two ligatures between which the ablation is effected. The endoceps, as he terms the instrument which he has devised for this operation, is formed of two branches, which are joined together like the obstetric forceps, but instead of crossing each other, as in the latter instrument, they separate at either end like the branches of the letter X, and when the two handles are approximated the opposite extremities diverge. The instrument is passed into the cavity of the uterus, the shape of the branches being adapted to the purpose, with knobs at the ends which fit into the cornua. This instrument enables the exercise of a powerful traction without tearing through the tissue of the womb, as happens when forceps are used which simply grasp the neck. After the instrument has been introduced the external extremities are made to approach each other until a sufficient sense of resistance is produced, when they are fixed by means of a screw which prevents the branches within the womb from diverging any further. The endoceps being in position, the neck of the uterus is drawn towards the vulva as far as the laxity of the tissues will permit. The precise relations of the anterior vaginal wall with the bladder are ascertained by introducing one finger through the urethra, which has previously been dilated. A circular incision of the vagina is then made upon the neck, taking care that it be below the point at which the bladder has been ascertained to lie, and avoiding the peritoneal cul-de-sac which covers the vaginal wall behind. The vagina is dissected for a slight extent from the uterus with the bistoury or scissors. Then, with the end of the finger, the bladder is pushed up and the cellular attachments of the peritoneum are separated as far up as possible. Meantime an assistant makes traction upon the endoceps to assist in the dissection, the direction of the traction being always downwards and backwards. The union of the peritoneum with the posterior vaginal wall is so intimate that no attempt can be made to separate them without danger of opening the peritoneum. The connections, however, yield a little and, finally a considerable prolapse is effected behind (in consequence of the continued tractions) as well as in front. Then, by means of small forceps attached to the external anterior wall of the womb, as near the fundus as possible, the uterus is brought well down, and while it is maintained in this position a ligature is applied above, forming a pedicle, which includes (1) in front, the vesico-uterine cul-de-sac, which has been detached and pushed back from the base of the organ; (2) at the sides, the broad ligaments with the uterine vessels; (3) behind, the utero-rectal cul-de-sac. An iron pin is passed through the pedicle, and behind it another ligature is applied and tied moderately tight. The uterus is then removed by the bistoury. The vagina is closed with five or six metallic sutures, leaving the pedicle outside till it separates, when the vagina is pushed back into the pelvic cavity.

Effects of Division of the Optic Nerve.—Dr. V. Krenchel has repeated Dr. Berlin's experiments of dividing the optic nerve of the frog, and obtains results quite contrary to those of that observer. It will be remembered that the latter found that this operation produced a direct accumulation of blood in the retinal vessels; the retina assumed a whitish cloudiness, and often became separated from its attachments; sometimes there were marked inflammatory changes of all the retinal layers, and, finally, granular degeneration of the optic nerve fibres. Occasionally the whole eye was destroyed by inflammatory action.

Krenchel also observed these changes when the operation was performed by Berlin's method; but he shows that this is due to the section of the vessels in the nerve and the ciliary vessels, which is unavoidable by that method. He found that he could divide the nerve within the skull, and thus avoid wounding the vessels. He incises and shoves back the mucous membrane of the pharynx, so that the optic chiasm can be seen through the thin bones, a little posterior to the equator of the eye, and divided with a small pair of sharp scissors. He found that in frogs thus operated on, for six months after the operation there was no change in the eye, either by ophthalmoscopic or microscopic examination. With polarized light the fundus was likewise found to be normal. The fundus was always dark whenever the two nicols had the position in which the reflex of the corneal tissue disappeared; only the red veins of the hyaloid could be seen over the black ground, due probably to the fact that all the light coming out of the eye is reflected by the retina. The white streak of the retinal vessels then disappears, which proves that the light comes directly from the smooth upper surface of the retinal vessels, or from the blood column, as indicated by Prof. Donders, and not from reflection from the fundus oculi and refraction by the vessel, as asserted by Loring. In the latter case it should, just as in the remaining parts of the fundus, be depolarized, and can, therefore, not disappear by turning the nicols. K. found that the circulation of the blood in the vessels of the hyaloid remained unchanged, and that the retina and pigment layer retained their normal appearance. The fibres of the optic nerve were always found to be normal. In a few cases, however, there was a fatty degeneration of the nerve filaments, though only one to two millimetres from the point of section. Most of the animals were kept alive five to six months, but it is very probable that the nerve layer of the retina would degenerate after a longer period. Lehmann says that fourteen days after the destruction of the nerve within the cranium, the nerve layer has already disappeared; but it is not possible to recognize delicate changes in the frog's eye by his method of examination.

Berlin states that the pupil contracts in his method of operating, and remains contracted for several days; it then dilates and remains dilated. Krenchel found that the pupil, even after several months, retained a certain mobility to light, although it does not contract nearly so long or so rapidly as before. This agrees with the fact known since the investigations of Brown-Séquard, that even in extirpated frog's eyes the iris reacts to light, although more weakly than in intact animals. By this method of dividing the nerve without injury to the nutrition of the eye the pupil does not contract, and what is more remarkable, the mobility on the penetration of light is not diminished. Even in animals which had been operated on five to six months previously, accurate and often repeated comparison with normal frogs revealed no difference either in the size of the pupil or in the reaction to sun, day, or gas light.—*Onderzoekingen gedaan in het Physiol. Lab. der Utrechtsche Hoogeschool, Derde Reeks*, iii. i.

Catarrh of the Biliary Ducts a Cause of Icterus.—M. Cornil describes a lesion of the fine microscopic biliary ducts, which occurs in various affections of the liver, accompanied with jaundice, and to which he thinks the icterus is due. He first observed it in connection with cirrhosis. In the midst of the hypertrophied connective tissue, between the lobules, the biliary passages were found lined with their cylindrical epithelium, while the interior of the canal was filled with desquamated epithelium.

The appearances were regarded as indicating a catarrhal affection. The biliary ducts being plugged up in this way, the bile secreted in the hepatic cells has no avenue of escape into the intestine, and hence finds its way into the blood. It is believed that the icterus accompanying different forms of parenchymatous hepatitis is due to a similar condition of the biliary ducts. C. has met with it in cases of hepatitis due to grave fevers, such as variola and puerperal fever. Moreover, the icterus occurring in connection with new formations in the liver, like carcinoma, may be similarly explained. Where the disease is accompanied by the development of fibrous tissue about the lobules, the small ducts become affected in the same manner as in cirrhosis, and it is only necessary that a sufficient number of ducts should be implicated for the icterus to be produced.

It was farther observed that whenever there was a complete retention of the bile the hepatic cells became affected with a fatty degeneration.—*Gazette Médicale de Paris*, July 31, 1875.

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A VACANCY IN A HOSPITAL STAFF.

ANOTHER vacancy has been created in the attending staff of one of the metropolitan hospitals. Every time such a state of things occurs we are reminded of the necessity of reform in hospital appointments, and are inclined to indulge in the vain hope that justice will be done and merit be rewarded. The exceptions to the rule which should govern such appointments have, however, become so glaring of late, that the most sanguine wisher for better things is well-nigh discouraged. The more important the position to be filled, the more difficult does it seem to separate it from the controlling influences of some one of the more powerful medical cliques. The assumed right which the colleges have of making the first choice, is now so much of an acknowledged fact that the outside profession submit to their dictation without question. Far from giving any reasonable chance for honorable competition for positions in any hospital staff, the filling of vacancies in certain of the large charities are all farmed out beforehand. We have every reason to believe that we shall have another illustration of the fact in the disappointment of many worthy applicants, who may in their innocence suppose their chances to be reasonably good for the vacancy to which we have referred. In the effort to gain enviable positions a large majority are sure to be disappointed, but the vanquished in an honorable fight have generally the melancholy satisfaction of explaining their defeat either to the ordinary accidents of battle or to the inexorable law which governs the doctrine of the survival of the fittest. That neither of these conclusions is always true in reference to hospital appointments, is quite apparent to many who have had experience in the matter.

All sorts of suggestions have been offered to change the existing state of things, but practically little of anything has been accomplished. Attempts have been made to initiate a reform founded upon the system of concours which has prevailed abroad, but seemingly to no purpose. The difficulty which presents itself at the very outset of such a consideration is the formation of an examining board which shall be sufficiently unprejudiced and sufficiently competent to decide upon the merits of the respective candidates. A Committee of Examiners might be made by some one or more of the medical societies, but it is notoriously true that almost all these associations are managed by gentlemen who are too incompetent for any other kind of work, and who are too willing to devote themselves to the interpretation of parliamentary laws and to the usual tricks of petty politicians. These medical Warwicks are usually so bent upon the accomplishment of petty schemes, that it is quite difficult to convince the more scientific portion of any body that the motives of their action are beyond question or not open to some suspicion. Under the circumstances there would be no guarantee that any satisfactory examining board could be appointed. The chances are ten to one that these petty politicians would vote themselves in as the censors, and so effectually monopolize the offices as to keep them in the lowest grades of designing cliquism. If it could be otherwise, we should make a very proper start towards establishing a concours which would tempt the best minds in the profession to the competition for hospital places.

It is certainly to be deplored that the medical profession, either from its inability to settle upon some reasonable understanding that should insure fair play in these appointments, or its general lack of interest in a subject of such vital importance to its members, should place itself so completely in the hands of laymen, virtually constituting the latter as the judges of medical qualifications. As the matter now stands the managers of our hospitals have the absolute right of appointing whoever they may choose. As a consequence, there is a temptation on the part of applicants to stoop to measures which tend towards sycophancy, meanness, and trickery, and which naturally beget a contempt for the claims of really meritorious men.

Not long ago there was a promise of a change in the manner of these appointments, by an avowed intention on the part of the Commissioners of Charities and Correction to respect the wishes of the profession in the matter. To such an end they proposed to receive nominations for hospital places from responsible medical sources. It was soon discovered, however, that although the outside profession might be satisfied with such an arrangement, the interests of the colleges were in an opposite direction, and after a vain attempt to reconcile differences, to quiet animosities between the different schools, and restore harmony in the medical staff, the attempt was finally abandoned as hopelessly utopian.

The neglect to properly advertise existing vacancies in the hospital staff is another radical fault in the system of appointments. An opportunity would thus be given for every one who believes himself qualified to serve the various institutions, to put in his claims. Now, as we have before intimated, hardly any one but the ring managers knows of a vacancy until it is filled. In fact we have known of appointments having been made to supply vacancies before the funeral of the previous occupant.

By allowing every one who chooses to apply an opportunity so to do, the managers can at least relieve themselves of a good deal of the responsibility which they assume in making their choice, and not restrict themselves to a few who may appear to them to be the only ones who desire a position. We are willing to do our part in furtherance of such a plan of action by gratuitously advertising any vacancies. In the present instance the writing of this article was prompted by the vacancies created in the hospitals in which the late lamented Dr. Krackowizer served, and as we have reason to know that such a vacancy in the New York Hospital is not yet filled, we take occasion to state that all competitors for the position should at once send in their applications to the Board of Governors of that institution, and judiciously and dignifiedly urge their respective claims without delay, and may the best man win.

SHALL IT BE A PROFESSION OR A TRADE?

In spite of the practical progress of pharmacy, and the predictions of a noble future for it, the question we propose must sooner or later be settled. Is devotion to pharmaceutical science and art to be a mere matter of dollars and cents, or is it to be the indication of a keen sense of moral obligation to the community on the part of a fraternity of educated professional intelligence? We are disposed to believe that the pharmacists of the United States are not yet fully prepared to accept the latter alternative. The confession embodied in the remarks of the Permanent Secretary at the recent meeting of the American Pharmaceutical Association, that it was impossible to check the sale of patent medicines, even by respectable druggists, because the public insisted on purchasing them, is an illustration in point on which to base a belief that over-sensitiveness of the pocket nerve, which is so marked a characteristic of human nature, may possibly keep pharmacy in the list of commercial rather than of professional pursuits. A more noble course was clearly outlined at the meeting in 1874, when in the course of the President's address it was urged that "the time has already arrived when the pharmacist is required to be something more than an artisan, if he desires to perform his duties intelligently and in accordance with strict scientific principles; otherwise he is a pretender without the hope of honor, a detriment to the public good, and an obstacle in the way of his more progressive brother. The pharmacist is required to be a merchant and a professional practitioner of his science, and by this subsidy of interests he is frequently found incapacitated to harmonize his several duties. Those who aspire to equal honors in the two phases of their business experience should carefully guard against that rock upon which so many have been wrecked, and which constitutes an impediment to progress. By uniting the two interests on a just and generous platform, and letting them serve as handmaids to each other in harmonizing diverging interests, very much can be accomplished towards advancing commercial and professional pharmacy." But in what way can these widely diverging interests be harmonized? Assuredly not by inaction and by a simple begging of the question in tamely confessing that druggists must persist in perpetuating a great public wrong, by yielding to an unreasoning demand for remedies, the ingredients of which are often unknown to both buyer and seller. Some of the semi-medical preparations thus sold have long since been proven by analysts to be possessed of positively deleterious if not absolutely poisonous properties; and yet, because the public, so called —a name which in this case is almost a synonym for the non-educated portion of the community—seek them, the druggist finds a convenient excuse for indulging in a traffic that is pecuniarily profitable.

In the Annual Report of the Board of Health of Boston, for 1874, we find an analysis of various hair-dyes and restoratives, cosmetics, enamels, etc., which, although not strictly coming under the class of patent medicines, are frequently sold by the apothecary. From an examination of the compounds first mentioned, the conclusion is arrived at that, as a rule, the use of these preparations is attended with much risk, from the absorption of lead into the pores of the skin, and thus into the system; while some of the familiar cosmetics "are nearly as dangerous as any toilet preparation can be made," one of those examined containing three virulent poisons in considerable quantity. We believe the best method to be pursued in order to bring the unreflecting portion of the public up to a proper standard of education on this subject is for the respectable apothecary to refuse peremptorily to sell for purposes of therapeutic efficacy, or even of mere external beautification, any compound of whose construction he is ignorant, or which he does not know to be innocuous. Until this happy millennium arrives, pharmaceutical associations may labor in vain to attain the elevated status they covet on the professional pedestal, for pharmacy will remain, in spite of the enthusiasm of its thousands of well-wishers, and of its numerous excellent and honorable scientific partisans, mainly a commercial occupation, around which will hang only the aura of professional perfection. Any halfway measure, such as was proposed at the recent meeting, in which it was suggested that a bulletin or health-almanac shall be issued, giving information as to the composition of patent medicines, will be incomplete, unsatisfactory, and impracticable. As a rule, the public will not care to see these publications; will not read them when they see them; and will not understand the points of danger involved when they read them.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, September 16th, 1875.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

AFTER the reading of the minutes of the last stated meeting, the President delivered a brief address of welcome to the Academy on this the first session after the usual summer vacation, in which he directed the attention of the fellows to some of the work before them to be performed during the coming winter, and chiefly relating to the discussion of certain important medical questions.

In the course of the librarian's report, which followed, it was announced, after acknowledging the receipt of several valuable books, that the President of the Academy had placed in the library about two thousand bound volumes of periodicals.

Before proceeding to read the paper for the evening, Prof. Isaac E. Taylor presented what he called an entirely unique specimen which he denominated

HÆMATOCELE OF THE AMNION.

The placenta was delivered at eight months. The hemorrhage had taken place between the chorion and amnion, and the amnion could be distended by means of a blow-pipe sufficient to cover a surface six and a half or seven inches in diameter. The specimen was regarded as analogous to one reported by Cazeaux; but in Cazeaux's case the hemorrhage was between the placenta and chorion. The umbilical cord was attached to the thin delicate amniotic membrane, and when the specimen was removed the bloody distention of the space between the amnion and chorion was about the size of a large egg.

PROF. TAYLOR then proceeded to read his paper upon the question,

"WHAT IS THE BEST TREATMENT OF CASES OF LABOR WITH CONTRACTED PELVIS?"

The subject was divided into two sections as follows:—What is the best treatment in cases of contracted or deformed pelvis with a diameter from 2½ or ¾ to 4 inches, and second, Is craniotomy preferable to Cæsarean section in cases where the diameter of the pelvis ranges from 2½ or ¾ to 1½ inches?

To the first question he directed the attention of the Academy at this meeting, and proposed to discuss the second on some future occasion. In order to solve the question under discussion he proceeded to consider which operation is preferable in this class of cases—version or the use of the forceps—and also studied the advantages which these operations have, the one over the other. There are two important points which should always be kept in view in the study of the question, namely, that operation is to be selected which will most conduce to the safety of the mother; and second, if possible, craniotomy is to be avoided.

The Professor then proceeded to recite the history of two cases, one with a uniformly contracted pelvis, and the other with a simple, flat, non-rachitic pelvis. By the simple, flat, non-rachitic pelvis is meant one in which the deformity is at the superior strait alone; and by the uniformly contracted pelvis is meant one which exactly comports with the word used, and is uniformly smaller than normal. The variety is believed to be much more common than is generally supposed, and is to be regarded as the real cause of delayed delivery in many cases of so-called tedious labor. The conclusions arrived at, with regard to the management of these two classes of cases, were that in the simple, flat, non-rachitic pelvis the forceps should first be resorted to, and if found impossible to effect a delivery by this means, then resort to version; while in the uniformly contracted pelvis the forceps should be employed, and in case the operator fails, then resort must be had to craniotomy or cephalotripsy. The professor argued that in these cases operative interference should not be delayed, as urged by many obstetric writers, until the child dies, but should be undertaken early.

With regard to version and forceps the opinion was expressed that the assertion that the former could be resorted to earlier than the latter is untrue.

Cases were cited in which he had applied forceps through an os uteri very thin, and dilated to only ⅞ of an inch in diameter, not large forceps for the purpose of effecting delivery, it is true, but forceps constructed in a peculiar manner, by means of which the head could be held in such a position as would enable it most effectually to secure the dilatation desired, and when this was accomplished then the larger instruments were applied and the child quickly delivered.

Finally, the question of the induction of premature labor was referred to, and the belief expressed that the results following this operation are not so unfavorable as one would be led to suppose by reference to the writings of very many observers.

The discussion of the paper was deferred until the next meeting of the Academy.

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NEW YORK COUNTY MEDICAL SOCIETY.

Stated Meeting, September 27th, 1875.

DR. THOMAS ADDIS EMMET, VICE-PRESIDENT, IN THE CHAIR.

AFTER the reading of the minutes of the last meeting the Chair announced the names of Drs. John Kinkead, William Fernbach, and Patrick Lynch, as reported by the Comitia Minora for membership, and the report was adopted.

The death of Dr. Krackowizer was then announced and a brief outline of his medical career read by Dr. Emmet, who appointed a committee, consisting of Drs. Jacobi, Rudlich, and Eliot, to draft appropriate resolutions.

The following names were placed in nomination for officers of the Society:

For President—Drs. Sands and Emmet.

For Vice-President—Drs. Emmet and J. C. Peters.

For Recording Secretary—Dr. A. E. M. Purdy.

For Corresponding Secretary—Dr. F. A. Castle.

For Treasurer—Dr. H. P. Farnham.

For Censors—Drs. Hanks, Heitzman, Russell, J. C. Peters, Janvrin, Mundé, W. T. White, Eliot, F. V. White, Packard, E. G. Janeway, Allen, and T. T. Sabine.

For Delegate to State Medical Society, to fill vacancy—Drs. Satterthwaite, B. Robinson, Lusk, Bulkley, Leale, and A. McL. Hamilton.

Amendments to the by-laws were reported, which are to be printed, sent to the members, and voted upon at a future meeting.

DR. BEVERLEY ROBINSON then read a paper upon

POST-NASAL CATARRH,

which is briefly summarized as follows:

This disease, which has been regarded as a simple one, has baffled the efforts of those who have made a specialty of it and kindred affections, and has not had its pathology accurately described. Post-mortems with reference to this affection have, from its nature, been very few, and clinical observation has not yet afforded us all that we need, hence our knowledge concerning it is necessarily imperfect. The best means for the examination of a case consists of a small mirror, a reflector, a tongue spatula, and a good light. As to whether the disease is a local or constitutional one, must be decided by clinical observation; but notwithstanding its very great prevalence and its apparent attacks and course, unaffected materially by habits or occupation in many instances, he was convinced that unless a special constitutional tendency existed in the individual, he would but rarely become subject to the disease. In other words, it is not a simple, acute, or chronic inflammation of the pituitary membrane, but a certain diathetic condition is necessary to its existence.

Chronic post-nasal catarrh is to be regarded as nothing more than a chronic follicular disease affecting the mucous membrane lining the naso-pharyngeal space, and is essentially the same as chronic follicular disease of the throat and air-passages. It is characterized by (1) a sensation of stuffiness and oppressive fulness in the superior and posterior nasal passages, and (2) by a falling down of a greater or less quantity of mucus, which varies in physical character from simple mucus to muco-pus, that becomes hardened, takes on a bad odor as the result of decomposition, and finally acts as an irritant to increase the chronic inflammatory processes, produces ulcerative changes in the tissues which may finally go on and affect the bones. It is only by inductive reasoning that we know of the presence of ulcers in the deep recesses of the nasal fossa. The ethmoid cells are probably diseased; but it could not be admitted that the amount of discharge which almost always occurs, comes entirely from them, because they have but few follicles, and it is altogether probable that the follicles of all the post-nasal passages contribute to its production. Hypertrophy of tissue was regarded as a sequela, and in many instances brought on by treatment.

The indications for treatment are constitutional and local, but systemic means were regarded as of prime importance which brings into use iron, quinine, arsenic, strychnia, cod-liver oil, abundance of fresh air, well-regulated exercise, bathing, etc., etc. The local treatment is to consist of the internal use of such remedies as have an effect upon the mucous membrane lining the naso-pharyngeal cavity, and the topical application of sprays and powders for the same purpose. Among the former we have the chlorate and iodide of potash, ipecac, squills, cubebs, copaiba, etc., etc. It much more frequently happens, however, that only temporary relief is obtained until we go behind these and seek for the diathesis which may be present, and address our treatment towards the relief of such constitutional affections, as gout, syphilis, malarial poisoning, tuberculosis, and others equally important.

In systems free from diathesis three remedies had been employed with decided advantage, namely, sulphur, cubebs, and ammoniacum. The sulphur is most beneficial when given by the stomach: in the form of spray it may prove to be an irritant. Cubebs should be continued for some time—for months even—which can be done by omitting the remedy for a few days and then returning to it. Scruple doses were recommended, disguised with syrup of orange-peel or other substance, and given before, or after, or between meals. Ammoniacum in one or two grain-doses, combined with some expectorant, such as perhaps ipecac, may be added with great benefit in many cases. When dyscrasic affections are present, they are to be treated according to their requirements. With regard to syphilis, small doses of mercury, notably the bichloride and biniodide, and continued for a long time, were recommended. Iodide of potassium was not regarded with favor. As regards

LOCAL TREATMENT,

it was remarked that there is no plan which receives the general endorsement of the profession, and it was believed that local treatment is not so beneficial as it is usually supposed to be. These statements were made in view of the facts, first, that we have no instrument by means of which remedies can be properly applied; and second, that applied in the usual manner they cannot reach all the diseased surfaces. The reasons why the instruments in common use are inadequate for the application of remedies to these diseased surfaces have been set forth in an article written by the author of the paper and published in THE MEDICAL RECORD, August, 1874.

Local treatment, however, is a decidedly powerful adjuvant, but to be this it must be carried on wisely. Not that we can reach the diseased parts, but that it will aid the effect of systemic remedies. Sprays and powders are substituted for the continuous stream of some solution so commonly used, because it is believed that they penetrate the irregular sinuosities of the passages quite as well, are equally useful, and are less liable to do harm. The temperature of the spray should be warm but not too warm, perhaps 70° or 80° F., and it should be concentrated, but not sufficient to be caustic in its action, hence strong solutions of nitrate of silver were rejected. A favorite powder consisted of iodoform one drachm, camphor one drachm, and gum sufficient to make a powder of a required strength, perhaps two drachms. Lastly, local applications are of service in reducing the thickness of the mucous membrane and restoring the glands to their normal condition. The paper was accepted by the Society, and, being open for discussion,

DR. BULKLEY remarked that his attention had been called to one cause of this disease which Dr. Robinson had omitted to mention, namely, functional derangement of the liver. The relation between the latter disease and the one under discussion was made by Dr. Murchison. Dr. Bulkley had noticed the fact in his own person, and turning his attention to the fact in his patients he had found it particularly present in cases of eczema, acne, and psoriasis, which are almost always associated with some disturbance of the digestive apparatus. The post-nasal catarrh is relieved by the treatment of those affections.

Locally, he had seen great benefit derived from the use of steam, loaded with the vapor of benzoin, prepared in the following manner: Throw a drachm of the compound tinct. of benzoin into a pan, perhaps a drachm of laudanum may also be added, and upon these pour a pint of boiling water, and let the patient quickly inhale the steam. This can be repeated very easily by the patient, and can be done a large number of times a day.

DR. BURRALL corroborated the statements made by Drs. Robinson and Bulkley, regarding the constitutional nature of the affection. He was of the opinion that salt water could be applied with great advantage as a lotion to the nasal cavity, when moderate force was employed. He also recommended the use of tr. belladonna, not only for its effect as a local astringent, but that its action upon the nerves of the parts may be obtained.

The Society then adjourned.

Correspondence.

REMARKABLE RECOVERY FROM GUNSHOT, SABRE, BAYONET, AND SHELL WOUNDS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—To the three cases of "remarkable recovery from gunshot wounds," which you have recently published, I may add one, which, though it does not enlarge the record of bullets penetrating the intestine, will, I think, be considered "remarkable" for tolerance of injury, and for the fortune which guided sword and bullet through vital tissues and organs with wonderful avoidance of the great blood-vessels.

Jacques Roellinger, private, Co. B, 47th N. Y. V., offered himself for examination as a candidate for a pension on the 29th of June, 1865.

The necessary notes for this purpose were taken at that time. It was the only opportunity which I had for seeing him, and duty to other applicants prevented a very prolonged examination of his case.

The points of the following history are transcribed from the notes above mentioned, and the connecting details are given as I remember them. Perhaps some medical officer may correct and extend them.

After the evacuation of Yorktown, in May, 1862, a part of the 47th Regiment was left in garrison at the abandoned Confederate works on Gloucester Point, opposite Yorktown. With them the inhabitants of the Northern Neck, or district between the York and Rappahannock rivers, kept up a guerilla warfare. A picket to which Roellinger was detailed was surprised, and he was wounded, (1.) by a sabre cut, leaving a long scar, which crossed the quadriceps extensor of the left thigh in its middle third. It appeared to have divided the tendinous and a portion of the muscular structures. (2.) By a sabre thrust, which passed between the bones in the middle third of the right forearm. The wound must have healed readily, for in the same season, at Williamsburgh, Va., also while on picket duty, he was shot (3) in the right thigh, the ball passing through the middle third, just external to the femur.

(4.) At the assault on Fort Wagner, in Charleston Harbor, July 10th, 1863, he received a sword cut across the spinal muscles covering the lower dorsal vertebræ. My recollection of the scar is that it indicated division of the tissues for six inches, with some loss of substance. When partially recovered he received a furlough, and went to visit a brother, at that time serving under Gen. Pope, in south-western Missouri. He was there captured by guerillas, and tortured in Indian fashion. (5.) Two broad and contracted cicatrices he declared were the marks left by burning splinters of wood, which were held upon the surface of the right anterior portion of the thorax. Escaping from his captors he presently rejoined the eastern army, and was serving in it at the battle of Olustee, in Florida, on the 20th of February, 1864. Being on the skirmish line in front of the enemy's works, (5) a fragment of an exploding shell passed from without inward beneath the hamstrings of the right thigh, and remained imbedded in the ligamentous tissues about the internal condyle of the femur. I could plainly feel it, apparently encysted there. Of course he fell, and the skirmishers, hastily retiring, left him on the field. Expecting a sally of the enemy, by the aid of some trailing vines he pulled himself up into the fork of a tree, where he hoped to escape further notice. The sally was made; he was seen and fired upon. (6.) The ball entered between the sixth and seventh ribs on the left side, just beneath the apex of the heart, and issued on the right side, posteriorly, near the angle of the ninth rib, traversing a portion of both lungs. Profuse hemorrhage from the mouth followed, and from the wound also, and, fearing that he must soon faint and fall, he slid down from his elevated position to the ground beneath. (He said he was a professional acrobat before he entered the service.) The enemy in turn were now retiring, and, with natural vindictiveness, *moriturus salutarit* with the contents of his revolver. One of their men fell, and one or two of his comrades ran back for a moment to our prostrate friend, whose smoking revolver showed him to be still a combatant. They bayoneted him through the body. (7.) On the margin of the epigastrium, where it merges into the right hypochondrium, I found a depressed triangular cicatrix, the sides of which were about half an inch in length, and, posteriorly, to the right of the spine, and, nearly on the same level, a similar but smaller scar, also triangular, but not depressed. These certainly looked as if they might have been made by the old-fashioned bayonet. If they were so made, that bayonet passed through the left lobe of the liver, and lacerated the posterior border of the diaphragm!

What was perhaps meant for a *coup de grace* was given in the form of a pistol ball, which (9) entered on the level of the angle of the left lower jaw, through the border of the sterno-cleido-mastoid muscle, and issued at the corresponding point on the other side of the neck. He added that during his convalescence he used to amuse the company by drinking and projecting the fluid in a stream from either side of his neck, by simple muscular effort. The ball then crossed the vault of the pharynx.

Perhaps Ponce de Leon's fountain of perpetual youth is somewhere near Olustee; at any rate the man lived most inexcusably, and at some time, I cannot say whether before or after, acquired the further following embellishments, viz.: (10.) The scar of a sabre thrust passing between radius and ulna, just below left elbow. (11.) A pistol shot, passing diagonally outward and upward through the pectorales major and deltoid of left side; and (12.) a deep cut dividing the commissure of the left thumb and forefinger down to the carpal bones.

The greatest disability from all this mutilation appeared to be the anchylosis of the right knee-joint. He did not declare, and I did not determine, any impaired function in the viscera of the chest or abdomen.

When the catalogue was ended this surgical museum politely apologized for his haste, saying that he was on his way to the steamer, intending to join Garibaldi's army, at that time campaigning in the Valtelline.

If any memoir of our civil war more "profusely illustrated with cuts" survives, let us hope that he will stay at home with us, where we can pay him honor and a pension, and not risk his elastic life among Italian brigands.

W. M. CHAMBERLAIN, M.D.

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THE PHILADELPHIA MEDICAL TIMES has changed from a weekly to a bi-weekly, and the price of subscription is reduced to $4.

THE PROGRESS OF MEDICINE IN JAPAN.

To the Editor of The Medical Record.

Sir:—Among the most interesting events of the present century is the almost universal appreciation and adoption of the modern ideas and appliances of science and art by the Japanese people; and in no departments has the progress been more rapid than in those of medicine and surgery, the teachers and students of which branches have been in no slight degree instrumental in advancing western civilization amid the most observing of the Mongolian nations.

During a recent visit to Philadelphia I had an opportunity of seeing a Japanese translation of the "Manual of Military Surgery" of my friend and clinical master, Professor Gross, a duodecimo volume of nearly two hundred pages, which appeared in the spring of 1861, and was designed to meet the emergency of the occasion, containing, as it did, in a small compass, substantial hints on field, camp, and hospital practice. That the little work was considered worthy of the pen of its distinguished author was shown by the fact that four thousand copies were issued from the press, and that it was included in the supply table of the Army Medical Department.

Through the kindness of Professor Gross I was enabled to take a copy of the letter of Surgeon-General Matsmoths, in whom I recognized an old acquaintance, having met him on the occasion of the visit of the Japanese Embassy to this country fifteen or sixteen years ago.

"Tokis, *the* 31*st May*, 1875.

"Dear Sir:—The deep interest I felt in, and the great value I attached to your precious 'Manual of Military Surgery,' published in Philadelphia in 1862, induced me to engage Messrs. Tokei and Yamaguchi to translate it into Japanese for the benefit of our National Military Surgery. I have the pleasure of sending you herewith such a copy, hoping that you will kindly accept it as a token of our high esteem and profound gratitude for your assistance in promoting the welfare of our military surgery.

"I have the honor to remain, dear sir, most respectfully yours,

"R. Matsmoths,
"Surgeon-General-in-Chief of the Sanitary Service to the Japanese Army."

From a letter written to Professor Gross by Mr. Bingham, our Minister to Japan, under date of June 9th, I made the following extracts, as they cannot fail to prove of interest, indicating, as they do, the wholesome influence that is being exerted upon the masses by the members of our profession, both native and foreign. He says:

"I have the honor to send herewith, through the State Department, a letter and package addressed to you by Dr. Bukema, a European surgeon and physician of high repute in the service of the Japanese Government. I was informed verbally by Dr. Bukema, that the package enclosed is a Japanese translation of your 'Manual of Military Surgery.'"

It is another evidence that the world moves to see these dreamy children of the land of the morning appropriating the science and learning of our western civilization, and incorporating into their own language the productions of our foremost thinkers.

It may interest you to know that many persons from Europe and America are in the employment of this Government as instructors of the people in the arts and sciences, the literature and laws of western nations. Among all the foreign nations introduced into Japan, none, I think, have done more for the material advancement and comfort of its people than the schools of medicine and surgery. These schools are largely attended by the native population, and are chiefly in charge of European and American professors.

As I am informed, these professors have done much by their methods of treatment to lessen and alleviate the ills that these people are heir to. For example, the small-pox, which for ages has been a terror and scourge in Japan, has been greatly checked by the introduction of vaccination. I have been told that one Japanese physician, aided by his assistants, has within three years vaccinated in the city not less than seventy thousand persons. This certainly looks like advancement in civilization and science, and would doubtless make Jenner feel, if it should come to his knowledge, that he had not lived in vain, even for the people of the distant land of the sunrise. In the light of this result how grand seem the words of that benefactor of his race, "I prefer duty in the lowly and sequestered walks of life to fame, that gilded butt forever pierced with the arrows of malignancy." Sad it is that Jenner felt these arrows himself, and was denounced for his great discovery as one who would "bestialize society."

I send you this interesting account, Mr. Editor, believing that the medical profession will be glad to know that our science is being so ably advanced in Japan, and to hear of the honor that has been so justly paid to the distinguished professor of our own country.

I am very truly yours,
Morris J. Asch, M.D.

33 W. 31st St., *Sept.* 20, 1875.

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"UNSUCCESSFUL PRACTITIONERS."

To the Editor of The Medical Record.

Mr. Editor:—In order to succeed it is as necessary for a young practitioner to remain long in one place as it is for him to be well educated, and had "Diploma" been satisfied with his first year's experience in New York, and remained there, I think he would have won the success he merited.

Your correspondent "Success" seems to think our "high-toned" professors make money a trivial consideration in their calling; but I am constrained to think that the making of money is the first and last consideration with them when I look at the competition between our numerous colleges and the persuasive inducements they *advertise* in the *daily press* and elsewhere to win students; for if professors secure large classes, fame and remunerating consultations follow. But if money is such a trivial consideration with these "high toned" gentlemen, why do they practise extortion on our patients when they consult them. Their consideration for the dignity and welfare of the profession outside of themselves is more a myth than a fact, and the colleges of these "high-toned" professors are as much a pecuniary speculation as some other money-making enterprises that they may affect to look down on. If they are really "high-toned" gentlemen, they must look with sadness at the crowds of poor students that are flattered into spending their money and time on a profession that must eventually fail them; and if young men do not wish to "suffer the slings and arrows of outrageous fortune," while waiting for practice, they had better spend their money and time in business that will be more speedily remunerative. We have had enough of the high-tone and dignity sham, and now let us have the facts—the facts that colleges and hospitals are run for the fame and pecuniary profit of a few medical men who are to a great degree regardless of the rights of our profession.

SUCCESSFUL PRACTITIONER.

September 27, 1875.

MEDICAL APPOINTMENTS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The recent discussion in THE MEDICAL RECORD of the "Presbyterian Hospital Affair" has led me to make some investigations into the statistics of the medical appointments in our charitable institutions, with a view to determine, in some degree at least, how much of truth there might be in the charge that these positions can only be obtained through favoritism and the influence of cliques. I send you the results of my somewhat laborious task, which you are at liberty to publish if you think they are likely to prove of sufficient interest to your readers.

The medical cliques in New York are numerous, as every practitioner very well knows, and it would be impossible for one observer to trace them all out, even though he might have abundant time and opportunity. I therefore selected the medical colleges of the city to represent the clique interest, and took for my guides the annual catalogues of these institutions, and the last number of the *Medical Register*. I do not claim to have reached absolute accuracy in my results, but I believe them to be sufficently correct to indicate quite nearly the points which I set out to determine. So far as figures go, I have tried to be entirely accurate, but college influence makes itself felt in the case of many physicians whose names do not appear in the catalogues, and a statistical summary of course can take no count of these.

The total number of physicians in New York, according to the *Medical Register*, is 1,197, and the total number of positions to be filled by medical men in the benevolent associations, asylums, hospitals, dispensaries, and infirmaries amounts to 754; 205 being consulting and 549 active.

These 754 positions are filled by 410 doctors, 100 of whom are directly connected with the colleges, and 310 are independent of the colleges.

The 100 college men fill 306 positions; 146 being consulting and 160 active.

The 310 independent men occupy 448 positions; 59 being consulting and 389 active.

1 college physician holds 11 positions.

2 college physicians, each holds 10 positions.

3 college physicians, each holds 9 positions.

2 college physicians, each holds 8 positions.

1 college physician, and 1 independent physician, each hold 7 positions.

6 college physicians and 1 independent physician, each holds 6 positions.

8 college physicians and 2 independent physicians, each holds 5 positions.

7 college physicians and 6 independent physicians, each holds 4 positions.

12 college physicians and 19 independent physicians, each holds 3 positions.

27 college physicians and 63 independent physicians, each holds 2 positions.

31 college physicians and 218 independent physicians, each holds 1 position.

F.

DUCHENNE, OF BOULOGNE, the well-known author of works on paralysis and electricity, is said to be severely ill.

LIGATION OF FUNIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Dr. Geo. Bayles says, in his article on "Elastic Ligature for Securing the Funis," in No. 251 of MEDICAL RECORD: "Another ring is commonly slipped over the placental end of the funis," and Dr. E. R. Pulling, in his article in MEDICAL RECORD, No. 245, "One (clamp) being used to apply temporarily to the placental end of the funis."

The small quantity of blood which flows through the placental extremity of the cord, as soon as the latter is divided, does not come from the maternal system—according to our knowledge of anatomy and physiology of the placenta—it is only the disgorgement of the umbilical arteries and vein, which vessels ramify on the fetal portion of the placenta. This very disgorgement is certainly harmless to the mother, and as it is generally believed that it facilitates the delivery of the placenta, it has been recommended *to use only one, and not two ligatures.*

Respectfully,

A. ROSE, M.D.

266 SEVENTH STREET, NEW YORK, *August* 28, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Sept. 26th, 1875, *to Oct. 2d,* 1875.

MCPARLIN, T. A., Surgeon.—Assigned to duty as Chief Medical Officer of the District of New Mexico. S. O. 182, Dep't of the Missouri, Sept. 28, 1875.

WRIGHT, J. P., Surgeon.—When relieved by Surgeon McParlin, assigned to duty at Fort Leavenworth, Kans. S. O. 182, c. s., Dep't of the Missouri.

TAYLOR, B. D., Assistant Surgeon.—Assigned to duty at Fort Rice, D. T. S. O. 187, Dep't of Dakota, Sept. 25, 1875.

WOOD, M. W., Assistant Surgeon.—Assigned to duty at Camp Sheridan, Neb. S. O. 105, Dep't of the Platte, Sept. 25, 1875.

WEEDS, JAMES F., Surgeon.—Died at Nashville, Tenn., Oct. 1st, 1875.

NAVY.

October 3.

DUNGAN, JACOB S., Medical Inspector.—Ordered to the *Brooklyn*, as the Fleet Surgeon of the South Atlantic Station, per steamer of the 23d inst. from Baltimore.

LEACH, THOMAS W., Medical Inspector.—Ordered to duty as a member of the Naval Medical Examining Board at Washington, D. C.

JACKSON, SAMUEL, Medical Inspector.—Detached from the Naval Hospital at Norfolk and ordered to the Naval Hospital at Chelsea, Mass.

MARTIN, CHARLES, Medical Director.—Detached from the Naval Hospital at Washington and ordered to the Naval Hospital at Norfolk, Va.

GRINNELL, F. M., Medical Director.—Detached from duty as a member of the Medical Examining Board, and ordered to the Naval Hospital at Washington.

BUELL, J. W., Assistant Surgeon.—Detached from the *Minnesota*, and granted four months' leave.

Medical Items and News.

The Late Dr. E. Krackowizer.—The Medical Board of Mount Sinai Hospital met at the residence of the president, Dr. Willard Parker, 41 East 12th street, New York, October 1st, 1875, when the following report was read and adopted:

The Medical Board of Mount Sinai Hospital meet to-night for the purpose of giving expression to their deep sorrow at the death of Dr. Ernst Krackowizer. A few resolutions of any nature whatsoever would not suffice to do justice to the memory of one on whom the most erudite and experienced surgeons of the country looked as their equal; who was recognized as a superior pathologist by the foremost men of the American profession; admired and called in council by all for his learning, skill, sound judgment, philosophical profoundness, and urbanity of manner; whose only ambition was incorruptible probity for himself and the elevation of the profession and mankind in general, and who, therefore, participated and led in every effort—professional, social, and political—in behalf of his exalted views and aims. In their prosecution he spent his strength and health, equally with his means, while his generosity was surpassed only by his modesty.

When such a man is removed from his sphere of usefulness, the universal feeling is that of a universal calamity. As his immediate colleagues, however, we deem it proper to simply express the deep sense of our bereavement. The Mount Sinai Hospital loses in Dr. Krackowizer a most zealous and successful surgeon and counsellor, whose services have been of invaluable importance to the Hospital. Both the Medical Board and the suffering sick will always remember them with both gratitude and sadness; and therefore the Medical Board, knowing what they have lost themselves, avail themselves of this sad opportunity to express to the family of the deceased their heartfelt sympathy with their loss, which cannot possibly be either repaired or forgotten.

A. Jacobi, *Chairman.*

The "Order of Lectures."—The *Boston Medical and Surgical Journal*, referring to the Order of Lectures recently published by us, says: "We do not know how accurate it may be in other respects, but we happen to know that the order of exercises at Harvard has not yet been determined"—rather an ill-natured observation when we consider that the information we gave was received direct from the secretaries of the respective schools, Harvard included, and that the writer of the article in the *Journal* could specify no inaccuracy. We won't tell the little story about the "mote in thy brother's eye," but will ask the editors of the *Journal* to take another look at the first line of their article and observe the beam in their own eye.

The Code of Ethics of the American Medical Association has been unanimously adopted by the Medical Society of Munich, and translated for the use of its members, bearing, in German, the title Der Aerztliche Stand und das Publikum. Eine Darlegung der beiderseitigen und gegenseitigen Pflichten.

Dr. F. W. Headland, of London, author of the Fothergill Prize Essay in 1852, on the Action of Medicines in the System, died recently in that city, at the age of forty-six. Of late years he devoted quite as much time to political journalism as to the practice of his profession, and was but little connected with medical affairs or societies.

Remarkable Post-Humal Preservation. — At Greenwich, England, the bodies of some children were exhumed after thirty years' burial, and it was found that everything connected with them was in as good a state of preservation as when committed to the earth. The brass nails and coffins were bright and fresh, and the embroidery on the dresses as unruffled as if it had just left the dressmaker's hand. The infants themselves—to use the words of an eye-witness—were as perfect as if they had just been born. The cause for this singular preservation is not understood.

The Cholera in Syria.—The correspondent of the *British Medical Journal* writes from Constantinople that the cholera seems to be declining in all the Syrian towns with the exception of Aleppo, where, during the week ending August 15th, there were three hundred and forty-one cases, and two hundred and fifty-three deaths. At Damascus, from the 9th to the 11th, there were only nine new cases.

New Members of the Resident Staffs of Hospitals.—The following-named gentlemen were successful in the recent examinations to fill the October vacancies in Bellevue and Charity Hospitals: *Bellevue*, Drs. Heinmuller, Pell, Stilwell, Peck, Woodruff, Simonson, Norris, and Kalish. *Charity*, Drs. Knight, Knickerbocker, Linehan, Oppenheimer, Ruccavado, Myers, and Hoffman.

The Hospital Sunday Fund collected in the London churches amounted this year to £26,703, against £29,817 received last year. It is to be distributed among one hundred and twenty-two institutions of different sorts embraced under the term "hospital."

Professor Depaul.—It is reported that Professor Depaul, of Paris, has been invited to Brazil, to assist the daughter-in-law of the Emperor in her approaching confinement. His fee is to be $50,000, with $10,000 for his expenses.

A Statue of Suetin, one of the most noted of Belgian surgeons, has recently been erected in the court of the Hospital Saint Pierre, at Brussels.

Novelties in Veterinary Practice.—*The Lancet* says that a cow on the farm of a Mr. Wilson, at Burrowdale, in Cumberland, suffered a fracture of the leg for which amputation became necessary. The stump healed well, and a wooden substitute for the part removed was adjusted, and the animal was enabled to walk about and feed in pasture.

The *Lyon Médical* adds to this the statement that Prof. Hertwig has employed artificial eyes of hard rubber to replace the organ when lost by horses. Not only do they prevent the entrance of dust and insects into the cavity of the orbit, but they add to the appearance of the animal. The operation for their introduction is very simple, and they require to be cleaned only about once a week.

Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office, 27 Great Jones Street, one week previous, to insure their appearance.*]

Tuesday, Oct. 12th.—Med. Soc. of the County of N. Y. (adjourned meeting), at the Col. of Phys. and Surg., 23d st., cor. Fourth av. "The Genesis of an Epidemic of Puerperal Fever," William T. Lusk.

Wednesday, Oct. 13th.—N. Y. Pathological Society, Col. of Phys. and Surg., 23d st., cor. Fourth av.

Friday, Oct. 15th.—Med. Library and Journal Assoc., 107 E. 28th st. "On Apoplexy," by John C. Peters.

Original Communications.

HOUSE SEWERAGE.

A REMARKABLE GROUP OF DISORDERS IN ONE FAMILY, THE RESULT APPARENTLY OF A DEFECT IN DRAIN PIPE.

By JAS. D. TRASK, M.D.,

ASTORIA, L. I.

OCT. 23d, 1873, I attended Mrs. A. B., in her sixth confinement. The house then occupied by the family is but a few years built, and contains the ordinary modern conveniences. Mrs. B.'s convalescence from her confinement had been unusually slow, which was attributed to her previously delicate health, when on the sixteenth day from delivery she was suddenly seized with symptoms of acute peritonitis. The fever was high, pain excruciating, tenderness extreme, and there was frequent vomiting. Large and frequent doses of morphine were required to subdue the pain, producing at times deep narcotism.

After five days the severity of the symptoms abated. There was still great tenderness and tympanites for a week or more following, with irritable stomach and great muscular prostration. On the 25th of November the acute symptoms broke out again with almost their original severity. From this time onward, throughout the month of December, there were periodical exacerbations or relapses, of which she had five very distinctly marked. The earlier attacks were regarded as peritonitis. Quinine was given in large doses from the first, the patient being unusually tolerant of it, and such nourishment as could be borne; but in a short time nothing but small quantities of liquid diet could be retained.

In the early part of December she was seen by my friend Fordyce Barker, who expressed the opinion that, whatever might have been the nature of the original attack, the present existing pain was to be regarded as caused by neuralgia of the peritoneum. Dr. B. advised pushing the quinine to the extent of producing its full physiological effects. After the 1st of January Mrs. B. gradually convalesced, and was able, by the 21st of February, to sail for Florida.

On the same day on which the mother was taken ill, as above described, her oldest son, who had been sent to the house of a relative, was taken with symptoms of fever of a continued type, which soon became severe. There was great prostration, no decided diarrhœa, no rose-spots. The sickness continued four weeks.

One week from the seizure of the mother and son, the cook, a woman of about sixty years of age, was taken down with a fever similar to that of the son, accompanied by rose-spots and diarrhœa, of which she eventually recovered.

On the same day the wet-nurse of the infant took her bed with what, after her subsequent removal to St. Vincent's Hospital, turned out to be cerebro spinal meningitis, of which she recovered.

One week after this two more of the children, who had been kept away from the house for at least three weeks, were seized with symptoms like those of the first child, and were sick for about three weeks. The infant died when three weeks old, but from causes disconnected with the house chiefly.

Of the remaining members of the family, the youngest child, but a little over one year old, who was retained at home with its nurse, suffered also from serious gastric disturbance, with marked general depression, and slight febrile excitement. Of a family of ten, only the nurse of the young child and the husband escaped illness in some form during the time of the protracted sickness of the mother.

Immediately upon the occurrence of the illness of the cook and wet-nurse, in connection with that of the mother and son, the conviction was forced upon the mind that there must be a common origin for all the attacks. Inquiry revealed the fact that at times unpleasant odors had been recognized in the parlors, especially in the vicinity of the folding-doors. Carpenters had already been employed to ascertain the source of this, and plumbers had examined the waste pipes and reported every thing unimpeachable. It was now resolved that a thorough overhauling of the premises should be instituted. This was made by those regarded as competent, and nothing out of the way found. The more the subject was reflected upon, the more confirmed became the conviction that the evil was in connection with the waste-pipe, at some point that had as yet eluded discovery. At length, after days had been spent in fruitless search, under the belief that Mrs. B. could not recover so long as the atmosphere of the house was poisoned, I insisted upon such an examination as should settle the point in dispute, and at last the source of the escape of the mephitic gases was discovered in an imperfect joint, just at the point at which the pipe was about to pass under the cellar wall into the main sewer; this leak being so situated as to allow the gases to pass up directly through the space between the plastering and the wall, and from thence by free communication into the parlors, through the casings of the folding-doors. It was not until near the end of December that the *fons et origo* of all this evil was discovered.

This narrative I regard as highly instructive, as illustrating the influence of sewer gas in producing disease, and also the difficulties that beset all such examinations, mainly in consequence of the gross incompetence of mechanics whom we are compelled to employ.

But the interest of this recital does not cease here. In the spring of the same year the family of Mr. B. removed to another house. The children, who had been previously delicate, and especially prone to gastric derangements, have since enjoyed perfect health. The health of Mrs. B. has remained delicate in consequence of chronic endometritis. On the 16th of January, 1875, she was seized with a sharp attack of metritis a few days subsequent to the menstrual period, which lasted a week, and on the 14th of February, at a corresponding date, there occurred a well-developed attack of metro-peritonitis, but little inferior in severity to that occurring a little over a year before. From this attack she had a long and tedious convalescence. As she began to recover, it came to my knowledge that during the previous extremely cold weather the waste-pipe leading from the water-closet adjoining her sleeping-room had, a few days before, been found completely blocked up by ice. There is no doubt that this accident occurred early, and that the atmosphere of this lady's apartment had been contaminated for some weeks by noxious exhalations unperceived by the senses.

Doubtless, in this particular instance a peculiar susceptibility to such influences may exist; but it does not seem to me to admit of any reasonable question that the attacks here described were due to the direct action of the poisonous exhalations from the obstructed drains. If the uterus may be the subject of congestive hypertrophy that can be measured by the sound, under the action of malaria, I see no reason why it may not, with its investing peritoneum, become the subject of inflammation from the exhalations of defective drains. In the present instance the convalescence of Mrs. B. was characterized by acute neuralgic pains, apparently located in the peritoneum.

It is not many years since the wife of a well-known professional gentleman of New York died under my care. She had acute metritis, coming on with no exciting cause, so far as could then be ascertained; but from the first there was a depression about her that was unaccountable. To myself, as well as to Dr. Barker, of New York, who saw her with me, her aspect and condition were suggestive of blood-poisoning. There was more or less evidence of the inflammation extending to the peritoneum also. After her decease I learned that the family, who had just removed for the summer from the city, had occupied one of a block of houses in a fashionable part of the city. The street sewer opened into the North River, above low-water mark, and consequently when the wind blew from a westerly quarter, at low tide, the poisonous gases were driven back, and diffused throughout the interior of dwellings connected with it by drains. This had often been a subject of observation in the neighborhood, as well as in the house in which this family resided, and there is no doubt that here was the direct cause of the deadly attack in the instance referred to.

This and the preceding case seem to show conclusively that metritis and metro-peritonitis may directly result from poisoning of the atmosphere by sewer gas, while the first case illustrates the variety of disorders that may be simultaneously excited in different members of a family by this cause.

The extreme difficulty at times of demonstrating the source of these exhalations, even when recognized as offensive, and especially when only suspected, ought to be impressed upon the mind of every practitioner. This arises mainly from the shameful incompetency of most workmen upon whom we are obliged to depend. As an instance of this, in a certain dwelling-house, with "modern conveniences," the family for years past have suffered annoyance from what was regarded as "rats in the wall." Much money and labor had been expended in tearing up floors and breaking through walls. In the meantime one member of the family died of a fever, which conformed to no particular type, but was characterized by typhoidal depression. During the last year my attention was called to these facts, and I insisted upon a new and thorough examination of the drain-pipes, and of the soil in their vicinity. This was done in an apparently thorough manner by men regarded as competent, but the evil continued. In the hall and certain rooms the atmosphere was often oppressively offensive. Quite recently the house, on passing into the hands of a new party, has been thoroughly overhauled, and new drain-pipes introduced. During the progress of this work the original drain-pipe was found to have parted just under the wall of the cellar, and thus free access of the gases was permitted to the entire space between the plastering and wall of the house.

I have known several instances in which, from the overflow of cess-pools, and sometimes from the deliberate act of indolent and unprincipled domestics, the soil beneath the floor of the kitchen or laundry has become saturated with drain-water. In one instance in which this had occurred, there were two deaths from fever of a typhoid character, and such fevers are of extremely rare occurrence in this vicinity.

It is plainly the duty of the family physician, as occasion offers, to remind those under his charge of this deceitful source of disease, and of the necessity of personal watchfulness over the sanitary condition of their homes.

In this connection it is of interest to note that diphtheria is now prevailing in this immediate vicinity, and has proved very fatal, and that, so far as can be ascertained, it is confined almost entirely to two streets, in which the gutters are notoriously filthy, and that not a case has thus far occurred on the streets in which attention is paid to cleanliness.

CLINICAL NOTES ON INCARCERATED HERNIA,

AND OF THE VALUE OF THE ASPIRATOR IN THEIR TREATMENT.

By EUGÈNE PEUGNET, M.D.,

FORDHAM HEIGHTS, NEW YORK.

It is a well-known fact that the incarceration of a hernia is due either to a constriction at the neck, external to, or within the sac itself; also to over-distention of the sac by serous effusion within it; again, by distention of the intestine, without there being any *primary* constriction at the neck.

The advice given by most of the skilful operators is first to divide the constriction externally to the sac, in case there should be any; then, if that fails, to open the sac, although we must always be guided by the duration of the strangulation and the urgency of the symptoms, as by thus reducing a hernia without exposing the intestine we might reduce one in a gangrenous condition. The above is no doubt in a measure orthodox, but many distinguished authorities, among others Sir J. Paget, appear to have overlooked the fact that over-distention of the sac by serous effusion is frequently, *secondarily, it is true*, the essential cause of the incarceration. Most of them refer to the distention of the intestinal tube. Mr. Thomas Bryant found it necessary to puncture the intestine, which had again protruded, subsequent to herniotomy with exposure of the intestines, and this after the constriction at the internal ring had been freely divided. His success in this case thus led him to propound the following axiom: "If, after operating, we can reduce a strangulated hernia by pricking, which we could not reduce without, is it not possible that we might reduce some hernias without any operation at all?" Dr. Leon Labbe thus reports its successful application by means of the aspirator in a case of inguinal hernia: "Taking into account the circumstance that the strangulation dated only about eighteen hours, and that probably the anatomical changes would be very slightly advanced, I, without hesitation, proposed puncture with the aspirator, and without further delay I introduced the No. 2 needle. About 10 grammes (two drachms and a half) of a yellowish liquid immediately escaped, together with a quantity of gas, which I cannot exactly estimate. The tumor, which was as large as a fist, flattened immediately, and a very gentle pressure exerted for one minute at the neck of the sac caused complete reduction of the hernia."

My attention was first called to this cause of incarceration by a case, also seen by Dr. Varian, of incarcerated congenital inguinal hernia, in a boy aged 4 months and 20 days, which gave rise to convulsions. On exposing the sac and puncturing it, the intestine immediately receded. The second was that of a farmer, 30 years of age, a patient of the late Dr.

Stone, of West Farms, with inguinal hernia of right side, which had been incarcerated for 72 hours. As the symptoms of strangulation were urgent, I opened the sac, which was very much distended with serum; as the intestine had undergone no marked change, I returned it without difficulty or any division at the neck, either within or without. The third was that of a man, 77 years of age, on whom I operated, with the assistance of Dr. Horsefield, with an inguinal hernia of 23 years' standing, which had become irreducible sixty hours previously, the only occasion in which the patient had failed to reduce it. The enormously distended sac was opened, a large quantity of bloody serum escaped, clots of blood then removed from the surface of the intestine, and the latter readily reduced. This man is now 87 years of age. All made a good recovery.

The first opportunity presenting itself for the practical application of the principles thus inculcated was a case of inguinal hernia of left side, in which the testicle had never distended into the scrotum. The subject, a man 55 years of age, had been suffering from it since boyhood, and on the 10th of May, 1875, the hernia protruded; the pressure of the pad had caused an inflammatory action in the sac, which rendered it exquisitely painful and sensitive. Having anæsthetized him, both Dr. C. M. Kellogg and I failed to reduce it. Then, with the concurrence of the Dr., I introduced the No. 2 needle of the aspirator into the tumor, which was about the size of the fist, at its upper and external angle, horizontally downwards, thus removing four ounces of serum from the sac. The loop of intestine and the testicle could then be distinctly felt through the parietes. As there had been no symptoms of strangulation no further attempt at reduction was made, but hot fomentations applied, and twenty grains of calomel administered; within ten hours the hernia was spontaneously reduced. At first I thought the intestine had been punctured, as a quantity of air bulbs passed into the aspirator, but subsequently ascertained that it was due to a slight defect in the aspirating tube.

The second, that of a widow, a patient of Dr. De Marmon, with a femoral hernia of the right side, which had been down for four days, all attempts at reduction having failed, and nausea with vomiting having occurred. With the concurrence and assistance of Drs. Naudain, Comfort, and Joyce, I performed the usual operation, dividing Hey's ligament, which relieved the external strangulation, but still the hernia remained irreducible. I accordingly raised the sac, and depressed the intestine, whilst Dr. Joyce introduced the aspirating needle, thus permitting the escape of clear serum; the intestine was then readily reduced. The patient had a profuse evacuation immediately after the reduction, and thirteen during the night. On the second day an unusual phenomenon manifested itself; the distended sac protruded through the lower segment of the wound, but as it evidently contained no intestine, it was left alone, especially as symptoms of phlegmonous inflammation had manifested themselves. The patient made a good recovery, and is now perfectly well.

The above-mentioned cases demonstrate the value of the aspirator in over-distention of the sac. But I have within a year operated on two cases of femoral hernia in which its use would have been entirely unadvisable. The first, on the 30th of November, 1874, was on a married woman, 30 years of age, who had a femoral hernia of five months' standing, which her husband was even unaware of. She sent for me, thinking that she was about having a miscarriage. I insisted upon making an examination, and discovered this hernia. Although symptoms of peritonitis had manifested themselves, with the concurrence of Dr. Bathgate I proceeded to operate, as a *dernier ressort*. The sac was inflamed, and the intestine, although dark-colored, reduced; but the patient died thirty hours after. No post-mortem allowed. On the 24th of June, 1875, I operated on the second one, a patient of Dr. Elting, a man 82 years of age who had had for a number of years a hard kernel in right femoral region. On the 22d, whilst standing on a ladder, attempting to pick cherries, he strained himself. On the 23d, Dr. Elting being sent for, recognized the difficulty. On the 24th, while the patient was etherized, Drs. Comfort, Horton, and Elting fruitlessly endeavored to effect a reduction. I saw him at 9 o'clock in the evening. He had incessant hiccup, vomiting, a cold, clammy sweat, and a pulse of 120. The usual operation exposing the sac, then opening it, was performed. The intestine, although chocolate-colored, was readily reduced, leaving the above-mentioned hard kernel, which proved to be a portion of the omentum; this was readily reduced after separating a few adhesions. This patient made a rapid recovery, and is now quite well.

It is therefore evident that the *aspiration, or the puncture*, are only of value in those cases in which the sac is fully distended by its contents, either from serous effusion or owing to a distended intestine. But even then we should make no attempt at reduction by such means, if the symptoms of strangulation are marked, and have been prolonged, as, although their application might prove successful, it would in all probability be prejudicial, as we might thus reduce an intestine in a gangrenous condition, which would then indeed prove to be malpractice.

CASE OF GONORRHŒAL EPIDIDYMITIS OCCURRING BEFORE THE APPEARANCE OF THE DISCHARGE.

By FRED. R. STURGIS, M.D.,

CLINICAL LECTURER ON VENEREAL DISEASES IN THE UNIVERSITY OF THE CITY OF NEW YORK (MED. DEPT.), ETC., ETC.

THE notes of the case, for which I am indebted to the kindness of Dr. E. T. Ely, of this city, are as follows:

A. L. B., a gymnast, æt. 19, of general good health, and free from all previous venereal disease, came under observation with the following history: On April 6, 1875, he had connection with a woman of the town; he suspects she had a discharge from the genitals, but is not positive of it. Between the 6th and 15th inst. he had intercourse twice with his wife; the last time on the 13th. He is quite positive his wife has no discharge. On the 15th April, he had a chill, followed by fever and malaise, accompanied by a severe pain in the hypogastrium and in the left groin, and thinks he passed bloody urine. Supposed he had "taken cold," as he had been sleeping near an open window. The next day (16th), he noticed that the scrotum was red, and the left testicle swollen and tender; the pain in the groin had somewhat moderated. These symptoms remained in *statu quo* until the 19th, when he was seen for the first time. He then had well-marked epididymitis of the left side, with considerable fever. Temp. 102°. *No trace of any urethral discharge could be detected, and he is certain that there has been none.* He has had no pain in passing water. Is positive that he has sustained no injury or strain. Has had no treatment beyond a poultice applied over the hypogastrium. Rest in bed, saline cathartics, and a suspensory bandage were advised.

April 20th.—Admitted to hospital. No change in the symptoms. *No evidence of a urethral discharge.* Testicle supported on a pillow, and a lead and opium wash applied to the gland. E. temp. 102°.

21st.—First noticed scalding during micturition last night. *This morning there is a scanty but thick purulent discharge from the urethra.* Was ordered Lafayette's mixture[*] internally three times daily, and an injection of cupri sulph., gr. ii., in aq. ℥ i. every four hours. M. temp. 99°. E. temp. 103.

22d.—Discharge free and purulent; micturition quite painful; testicle about the same; no marked pain, except on pressure. M. temp. 101°. E. temp. 101.5°.

23d.—Less discharge, and less pain in urinating. M. temp. 99.8°. E. temp. 100°.

25th.—Discharge almost ceased. A drop of thin fluid can be squeezed from the meatus by pressure along the urethra. Inflammation of the testicle subsiding. Temp. normal.

27th.—No discharge seen yesterday or to-day. Testicle better, but epididymis considerably indurated. Testis strapped. Lafayette's mixture discontinued.

May 1st, 1875.—Discharged from the hospital at his own request. Considerable induration and enlargement of the epididymis still remaining. No urethral discharge can be detected. Injection stopped.

May 4th.—Came as out-patient. Testicle improved. Urethral discharge reappeared yesterday, thin and white in character. Patient denies having committed any excess. To inject a two-grain solution of nitrate of silver three times daily.

Patient has not been seen since.

NOTE.—The case is of interest from the fact that the epididymitis preceded the urethral discharge by fifteen days, instead of occurring, as it usually does, between the third and eighth week, from the beginning of the disease. The objection which might be raised, viz., that the discharge may have existed prior to the inflammation of the testicle is, I think, easily disposed of. Were the patient's word the only evidence, it might be a question; but from the 19th inst. until the 21st, when the discharge appeared, he was under medical observation, and it is specially mentioned that none was evident. But few such cases are recorded in medical literature, only two being, so far as I know, on record; one by Castelnau, where the running occurred five days after the urethral discharge; and the other by Vidal.[†] Here three times the length of time elapsed. It is always possible that the whole trouble may have been catarrhal, due perhaps to the sleeping near the open window, and this is allowable, so long as we have no positive evidence of gonorrhœa in the woman. Be that as it may, the case is a curious one, and shows that in very rare cases the testicle may be affected before any evidence of urethral trouble is apparent.

16 WEST 32D ST.

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CATHOLIC UNIVERSITIES IN FRANCE.—Three universities, under the auspices of the Roman Catholic Church, have been lately established in France; one in Paris; another in Orleans, and a third in Angers. Each of these embraces a Faculty of Medicine.

A CASE OF

"PARTIAL PARALYSIS FROM REFLEX ACTION CAUSED BY ADHERENT PREPUCE."

BY J. H. HUNT, M.D.,

PORT JERVIS, N. Y.

(Abstract of history read before the Tri-States' Medical Association.)

THE history of the following case, as it appears in my case-book, possesses considerable interest, especially as it represents a typical case of the disease, "Reflex Genital Irritation," first described by Dr. Lewis A. Sayre, in 1870, before the American Medical Association. Dr. Sayre more recently read an elaborate paper at the last meeting of the American Medical Association, at which time cases were narrated as occurring in both sexes.

Samuel Moore, æt. six years. The patient was injured May 24th, 1875, by the wheels of a wagon, heavily loaded with stone, passing over both lower extremities. There was found a compound comminuted fracture of tibia and fibula of right, and a simple fracture fibula of left leg. In right limb the fracture of tibia was situated at junction of middle with lower third, while the adjacent bone was fractured somewhat lower. The wound was longitudinal, three and a half inches in length, and situated on upper and inner surface. In the left leg, the fracture was found to be situated at a point two inches above malleolus. The limb was very much swollen and contused. The fractured members were placed in fracture-boxes, and evaporating lotions applied. On the following day it became evident that, owing to extreme restlessness and nervousness on the part of the patient, other measures would have to be adopted to retain the fractured bones in position. A plaster-of-Paris splint was at once applied to fracture of right side, a fenestra cut opposite the wound, and the leg supported in a modification of Dr. Van Wagenen's apparatus. The fracture of left leg was treated by placing it in a wire fracture-splint, properly padded, and applying evaporating lotion. The patient made a rapid recovery. During convalescence, I frequently noticed the penis in an erected state. On examining the organ the prepuce was found firmly adherent by its entire circumference to the glands, at a point midway between corona and meatus. Margin of meatus red, and presenting granulations. On interrogating the mother the following facts were elicited. The child, since learning to walk, had a peculiar staggering gait; seemed unable to properly control the lower extremities. He very frequently fell down without sufficient cause. He was exceedingly nervous, and affected with twitchings of muscles of face and extremities. Had a habit of suddenly plunging the right hand into breeches-pocket, without apparent reason, then quickly withdrawing it. Whenever the genitals were exposed to her view, the *penis* was *invariably* in an *erected state.* The child was in the habit of starting, and screaming out during sleep. When asked to protrude the tongue, an effort would be made, but the organ usually rolled about in the mouth, without protrusion being effected. The child was unable to articulate well, and the intellectual faculties, so far as could be observed, were below the average.

A loquacious neighbor informed me that the child, because of its idiocy, were "better dead than alive," and that it was a curse to the family, and a subject of ridicule by the neighbors, because of the supposition that the child was marked in utero, from the mother seeing the father in an inebriated condition.

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[*] Copaibæ	℥ i.
Liq. potassæ	℥ ij.
Spts. etheris nitrici	℥ i.
Syrupi acaciæ	℥ vj.
Olei gaultheriæ	gtt. xvi.

M.
S. Tablespoonful.

[†] Quoted by Bumstead.

When the patient had partially recovered from his injuries, or about three weeks after receiving them, I performed circumcision in the usual way. The wound soon healed, leaving the prepuce sufficiently long to allow it to be drawn over the glands. Almost immediately improvement became manifest, and although only eleven weeks have elapsed, the boy has completely recovered from his infirmity. The gait has lost its staggering character, and the tendency to tumble down has disappeared. The convulsive twitching are no longer observed. Can protrude the tongue without difficulty; mental faculties are decidedly improved; sleep undisturbed; while the erections of the penis have lost their abnormal frequency.

PORT JERVIS, N. Y., *September 13th*, 1875.

Progress of Medical Science.

CASE OF PULMONARY AND TRICUSPID VALVULAR DISEASE.—Mr. Alexander Morison, of London, reports the case of a youth, aged 20, who had scarlatina at five years of age, and who was known to have had heart disease at eight years of age His family history on both sides was rheumatic, cardiac, and phthisical. Till eighteen he performed clerk work satisfactorily, when exercise at cricket seemed to bring on his urgent heart symptoms. The pulse varied from 78 to 84, regular, small, but distinct. There were pulsations in the suprasternal fossa, with regurgitation into the external jugulars; the carotids were normal. There was a bulging forward in the præcordial region, flattening under the left clavicle, visible systolic pulsation from the second left intercostal space to below the nipple, well-marked epigastric pulsation, increase of the transverse heart dulness. A systolic bruit was heard at the left edge of the sternum, below and to the inner side of the nipple, not traceable round the left chest. There was a double murmur, best heard over the third left cartilage, harsh and grating, not propagated into the large arteries, but towards the left shoulder. He had angina passing to the right shoulder and down the right arm. The breathing was harsh; no marked dulness, and no crepitation. The liver was enlarged; some albuminuria was present; the bowels were regular, though latterly he had had some diarrhœa. Some purpura was present. He died without convulsions. At the post-mortem examination there was found valvular obstruction at, and regurgitation through, the pulmonary and tricuspid valves, which were much altered by warty vegetations. The tricuspid obstruction was not so pronounced as the other conditions. The right ventricle and auricle were dilated, the latter somewhat hypertrophied. A partially defibrinated clot was found in the auriculo-ventricular orifice, and another passing through the pulmonary opening, and stretching into the two chief bifurcations of the pulmonary artery. The mitral and aortic valves were healthy, though there was some deposit on the mitral segments. The left ventricle was not hypertrophied. The muscular fibres were healthy. The lungs were small, crepitating, but with scattered patches of induration; both extreme bases were solid. The kidneys were much engorged.

Mr. Morison ascribed the valve lesions to scarlatinal endocarditis, and considered the kidney affection as more recent than the heart disease.—*Trans. Brit. Med. Ass.—British Med. Journal*, August 21, 1875.

SPENCE ON LISTER'S ANTISEPTIC METHODS.—At the late meeting of the British Medical Association Prof. Spence introduced a number of facts going to show that Lister's treatment was not the only one that gave excellent results in surgery. Suppuration, he believed, was not unknown in this antiseptic system, whilst the average duration of treatment, as far as he could learn by hospital statistics, was not lessened.

As an instance of another method he stated that during three years, out of sixty-three major amputations for disease, he had had three deaths; and out of twenty-three cases of excision of joints only two deaths. His treatment consisted in thoroughly washing the surface of the wound by pouring tepid water over it, occasionally applying tincture of iodine to the flaps, while the dressing consisted of a fold of lint or thin muslin. In preparing his statistics of amputations he found that the nature of the disease or injury had a very important influence on the result. In the treatment of wounds all surgeons had for their object the avoidance of putrescence, though their views might differ as to the best way of attaining it. In treating lacerated wounds and burns of the extremities he recommended continuous immersion in the tepid bath, and here the antiseptic method could be carried out most thoroughly by mixing carbolic acid with the fluid.—*Medical Press and Circular*, Aug. 18, 1875.

NATURAL HISTORY OF DYSENTERY.—In 1853 Dr. Austin Flint published a clinical report of dysentery, based on an analysis of 49 cases. From data obtained in these cases Dr. F. drew certain conclusions with regard to the nature of the disease, its etiology, duration, tendency to relapse or recurrence, fatality, etc. Briefly, dysentery was inferred to be an infectious disease, which "by preference" affected "persons in good health," in a salubrious northern climate rarely ended fatally after infantile life," and was neither disposed to relapse nor to recur in the same individual, or to become chronic. Thirty of the cases ended in recovery. Their duration varied from one to twenty-one days; reckoning from the date when diarrhœa commenced the mean duration was $9\frac{5}{6}$ days. The above cases were variously treated—with laxatives, opiates, astringents, and topical applications in the form of enemas. Of all remedies opium was esteemed as the most valuable. The fact that different, and often opposite, methods of treatment have been employed with apparent success in dysentery is thought by the author to imply an intrinsic tendency in the disease to self-limitation. In order to ascertain the correctness of this inference, Dr. F. has recently supplemented the above analysis by the addition of ten cases of dysentery, in which the disease was suffered to pursue its natural course, without interference by medication. The ten cases were collected during the last three years, and were only selected with a view to a fair result. The history is presented in each case. All the cases ended in perfect recovery, and the mean duration was $11\frac{1}{5}$ days, or, leaving out one case where a diarrhœa preceded the dysenteric discharges for 14 days, it was only $10\frac{1}{9}$ days. Comparing the mean duration with that ($9\frac{5}{6}$ days) of the thirty cases ending in recovery in the previous analysis, the slight difference would imply that treatment had but little influence in shortening the duration of the disease. This influence is made to appear in a still more dubious light by comparing the cases which were treated in hospital with the ten which were left without treatment. Thirteen of the above 30 cases were treated in hospital, and their mean duration was 13 days, or three days longer than that of the 10 cases not treated at all. Dr. F., however, deprecates drawing too strained an inference from this last comparison.

The writer closes with the following conclusions:

1. The disease, in a temperate latitude, tends, without treatment, to recovery.
2. It is a self-limited disease, and its duration is but little, if at all, abridged by methods of treatment now and heretofore in vogue.
3. Convalescence is as rapid when active measures of treatment have not been employed as in cases actively treated.
4. Relapses do not occur in the cases in which the disease has been allowed to pursue its own course without active treatment.
5. Sporadic dysentery, in a temperate climate, does not terminate in a chronic form of the disease; in other words, it does not lead to ulceration or other lesions of the mucous membrane of the large intestine, and it does not involve any tendency to complications or secondary affections.—*American Journal of the Medical Sciences*, July, 1875.

Progressive Muscular Atrophy.—At a recent meeting of the Société Anatomique de Paris, M. Troisier presented the history of a case of progressive muscular atrophy, with autopsy. Clinically it was of the type described by Aran and Duchenne, and with M. Charcot might be termed the Aran-Duchenne type. The course had been exceptionally rapid (15 months). It was the fourth case published where the relation between the muscular atrophy and the lesion of the anterior horns had been demonstrated. The lesion of the anterior horns consisted in simple atrophy and in the disappearance of a large number of the nerve cells. There was no increase of the nuclei of the neuraglia; hence the atrophic process did not depend upon an inflammatory condition. The muscular atrophy was a simple atrophy, without granulo-fatty degeneration. This was invariably the case. A certain degree of interstitial lipomatosis, which always exists, may sometimes have produced the erroneous impression of a steatosis of the muscular fibre. There had been no increase of the nuclei of the sarcolemma, contrary to the observations of M. Hayem. The reason of this might have been that the case was of comparatively recent standing.—*Lyon Médical*, Aug. 15th, 1875.

Gonorrhœal Rheumatism.—M. H. Fourestié, an interne of the Paris hospitals, has collected 22 cases of rheumatism occurring in connection with gonorrhœa, with the view of showing a more definite relation between the two affections than has hitherto been established. The existence of a gonorrhœal rheumatism, properly so called, as a distinct and peculiar form of rheumatism, is by no means universally admitted. The coincidence is regarded by some as purely accidental, while others admit only so much as that in a rheumatic subject a urethritis may excite the arthritic tendency to an acute outbreak. Moreover, certain writers have asserted that only the acute form of gonorrhœa was capable of exciting the rheumatic attack. The object of Fourestié's researches was to show an intimate relation between the disease in the urethra and the rheumatic symptoms as regards their more or less acute or chronic character. Thus in 13 of the 22 cases an acute or subacute blennorrhagia was found to coincide with an acute arthritis, or with an acute articular rheumatism affecting a number of joints. In four of the cases the same form of gonorrhœa was associated with simple rheumatic pains or with the apyretic form of polyarticular gonorrhœal rheumatism. In four cases a chronic gonorrhœa gave rise to a form of rheumatism which differed from both the preceding forms. It was very long persistent, it affected only one or two articulations, showed a tendency to implicate the bursæ of tendons, causing a chronic inflammation of the adjacent cellular tissue, and was accompanied with acute pains, and often with pronounced anæmia.

In one case only the chronic blennorrhœa appeared to coincide with an acute polyarticular rheumatism. This case was regarded as exceptional.—*Gazette Médical de Paris*, 27, 28, 32, 33, 1875.

Treatment of Condylomata Lata.—The exuberant papular growths commonly known as flat condylomata, which sometimes occur in the neighborhood of the mucous orifices, particularly of the genitals, in syphilitic subjects, belong to the most repulsive and annoying of the manifestations of syphilis. Any mode of treatment by which their cure may be expedited must be esteemed as a desirable addition to our knowledge. Fournier advises in the way of local treatment simple attention to cleanliness and the application of some inert powder. In an article in the *Gazette Médical de Paris* (July 31, 1875), Dr. Jules Charon claims that by more active measures the duration of the treatment may be decidedly abridged. He had formerly used the acid nitrate of mercury with which the papular growths were canterized, and with much more rapid results than when Fournier's plan was pursued. But the object of the present article is to advocate the cauterization with nitrate of silver and metallic zinc in the manner first proposed by Professor Conradi. The method and its action are thus explained: When a portion of the integument is touched with a strong solution or the pure stick of nitrate of silver, the first effect is to produce a whitish or grayish discoloration, the whitish color being due to the formation of albuminate and chloride of silver. Gradually the spot assumes a darker color, becoming brown or chestnut colored, and finally quite black. The nitrate of silver is decomposed by the organic matter, and is after a time reduced to metallic silver, which uniting with the tissue causes the black color. If, while the reduction is in progress, two silver electrodes of a galvanometer are brought into contact with the spot to which the nitrate of silver has been applied, the passage of a slight electric current will manifest itself, the needle of the battery showing a deviation say of ten degrees. But a much more powerful action may be induced if metallic zinc is brought in contact with the spot after being touched with the nitrate of silver. The reduction of the silver, instead of taking a considerable length of time, is then affected immediately. If one of the electrodes of the galvanometer have a small rod of metallic zinc attached to it, as soon as the spot to which the nitrate of silver has been applied is touched with the zinc rod of the electrode, the black color is produced instantaneously, and the needle of the galvanometer shows a deviation of 45 degrees. The nitrate of silver thus aided by the zinc proves to be a very effective caustic, and for the treatment of the above syphilitic growths the writer has found it peculiarly serviceable. Tables of the series of cases of condylomata lata which were treated respectively by Fournier's method of simple attention to the ordinary rules of hygiene, by cauterizations with the acid nitrate of mercury, and with metallic zinc and nitrate of silver, are subjoined to the article, and show clearly the superiority of the treatment last named. Of 9 cases treated with simple cleanliness, inert powders, etc., the duration was 53–4 days; of 8 cases treated with the acid nitrate of mercury the duration was 29–30 days; 6 cases treated with nitrate of silver aided by metallic zinc were cured in 8–9 days.

On the Treatment of Carbuncular Affections in Men and Animals.—At a meeting of the Académie des Sciences a report was furnished by M. Cezard, veterinary surgeon, on the treatment of carbuncular affections, that is, malignant pustule and its allied diseases, in men and animals. The following was the line of treatment suggested: First, to support the organism; and second, to neutralize the morbid effect of the poison. The one object might be accomplished by giving the acetate of ammonia internally. in doses varying from 50 to 200 grammes (an ounce and a half to six ounces nearly) in the twenty-four hours, and the other by the use of iodine, which he claims is the most powerful known remedy for destroying the morbid poison. even when the blood has become contaminated. In the proportion of 1 to 12,000. he says it will soon destroy the virulent power of a liquid outside the body; but when the system is infected it requires a comparatively smaller amount. Animals will support the introduction into the circulatory system of a quantity of iodine equivalent to more than $\frac{1}{5000}$ of the mass of the blood. Given by the mouth, or better. hypodermically, iodine is absorbed. and preserves its special properties even in the blood. In serious cases intra-venous injections may be practised. Iodurated fumigations are also beneficial. This general treatment is efficacious in the incubative period of malignant pustule and other allied diseases. Local treatment should be instituted as soon as possible, and the pustule should be treated both by subcutaneous injection and by wet applications of iodine, in a solution of 1 to 100. For animals this anti-virulent treatment is more useful as a preventive than curative; but as a prophylactic it is advised to use a solution of sulphuric acid (1–5000), which is to be sprinkled over the fodder or food.—*Recueil de Méd. Veterinaire.*

Acute Rheumatism and Rheumatic Fever.—At the recent meeting of the British Medical Association, Dr. Reynolds, referring to a paper which he had read at the meeting of the Association in 1869, "On the Treatment of Acute Rheumatism by the Tincture of the Perchloride of Iron," gave the following record of his results: Of first attacks. forty-four per cent. were convalescent within the first week, while of those in their second, third, or fourth attacks, forty-two per cent. recovered within the same period.

Mr. Johnston (of Birmingham), in a paper on the same subject. supported the theory that the non-conversion of starchy food into glucose, and its conversion into lactic acid, which latter was absorbed into the system, produced the symptoms of rheumatic fever. He advocated the use of bicarbonate of soda, given in enema. He preferred soda to potash. In twenty cases treated in this manner. the temperature had fallen below the normal in the course of a week.

Dr. Fox (of Bristol), did not think that heart disease was a complication as often as had been generally represented, and thought that but few physicians were satisfied that the treatment advocated by Dr. Reynolds was superior to any other. He preferred the practice of frequent blistering of the joints, combined with the use of alkalies. Dr. Crighton (of Tavistock), had been treating cases with large doses of the tincture of perchloride of iron, combined with liquor ammoniæ acetatis, with the result that the fever, which he thought would not otherwise have been subdued within six weeks, had subsided within ten days or a fortnight. The accompanying heart diseases had also been very greatly reduced.

Dr. Stephenson (of Edinburgh) thought that in all such subjects the age of the patient should be remembered, and he believed that it was generally understood that after thirty a man's heart was pretty safe from the effects of acute rheumatism.

Dr. Meacham (of Manchester), who had experienced the disease in his own person, objected to blistering, but believed that the bicarbonate of soda was one of the best remedies for rheumatic fever or rheumatism, and should not object to taking two drachms when he suspected an attack was approaching.—*The British Medical Journal*, August 21, 1875.

Tar as an Antiseptic Dressing for Wounds.—In a communication to the Académie des Sciences of Paris, M. Sazarin states that after numerous experiments with different antiseptic dressings. he comes to the conclusion that vegetable tar (Norway tar was used) is an excellent agent for fresh, or already granulating wounds. Under its influence the granulations are small, red, and firm, and the pus thick and of good quality. When tar is applied to the wound by his method the parts smart at first, but this feeling soon passes off. The dressings can be left on some time without causing any irritation of the skin. The dressing is applied as follows: The wound is covered with a layer of tar extending to the nearest joint, if on an extremity; or some eight or ten inches over the borders, if on the trunk. Cotton-wadding, compressed with tolerable tightness, and the thickness of two fingers' breadth then covers the whole, and is kept there by a bandage. This dressing is again tarred over, and cotton and a bandage are again applied.

If the dressing be removed after ten, fifteen, or twenty days, a dry coating of wadding will be found adherent to the skin. At a short distance from the border of the dressing this coating brings away. when removed, the superficial layer of the epidermis, which forms with the tar and the wadding a soft, black membrane. adherent and strong, impermeable. and perfectly moulded on the surface of the extremity. This membrane is separated from the skin to a variable extent, according to the quantity of pus collected beneath it. Most excellent results were obtained in one case of amputation of the thigh, in two amputations of the legs, in two resections—one of the elbow and one of the knee—in five cases of suppurative arthritis of the elbow, and in several other minor cases.

Loose Cartilages in the Knee-Joint.—Mr. Jos. Bell recently removed a loose cartilage. the size of a filbert, from the knee of a man who had suffered from the characteristic symptoms for the past nineteen years. The operation was performed with antiseptic precautions; a drainage tube was left in the wound, the lips of which were closed by catgut sutures.

The tube was removed on the fourth, and the sutures on the tenth day, and by the twelfth day after the operation the wound was quite healed and the patient was able to walk.

Another case, reported by Dr. Williams, of the North Riding Infirmary. Middlesborough, was of a man who first noticed trouble in his knee about four years before he presented himself at the institution. A portion of cartilage, the size of a sixpence, was removed by the antiseptic method, and the wound. the lips of which were not brought together by sutures, was dressed with Lister's antiseptic gauze, eight plies, and the limb placed in the extended position. In twenty days the wound had healed, each dressing having been done under the carbolic acid spray.

The cicatrix was strong, and he was allowed to walk about, which he could do perfectly. There was no stiffness or uneasiness in the joint, and he soon returned to his labor.—*The Lancet*, August 28, 1875.

A Case of Irregular Development of Pustules after Vaccination.—Dr. Wiehen, of Hildesheim, reports that on May 6th, 1874, he vaccinated a healthy child, about a year old, with glycerine lymph, which had been kept for some weeks in a tube. With the object of procuring a good supply of lymph for future use, he vaccinated at eight points on each arm. Examining on May 13th, the eighth day, he was surprised to find but two pustules developed on one arm, and one on the other, while the other points of vaccination showed not the slightest sign of vesication. Three children vaccinated from these pustules took perfectly well and regularly. On May 18th, he happened to be again in the house of the first child, and the nurse called his attention to her arm, when he found the first were drying up, but that there were five vesicles in the first stage of development, and looking as if they dated from but three or four days before. They developed regularly and alike, having on the 22d the appearance of eighth-day vesicles. Dr. Wiehen feels at liberty to infer that the child had not attained immunity from the development of the first three vesicles, and was not protected until the 20th of May, otherwise the second five would have been abortive. He is inclined to the opinion that cases similar to the above may not unfrequently occur, but escape notice, because the physician does not visit the patient after the eighth day.—*Virchow's Archiv*, July 27, 1875.

On the Treatment of Enlarged Glands.—Dr. Morell Mackenzie states that after experimenting with various solutions, he has found that dilute acetic acid is the most valuable remedy. He injects, as a rule, once a week; but, where several glands are affected, the injections can be made more frequently. It is desirable, if possible, to cure by absorption; but sometimes suppuration cannot be avoided. In these cases the pus is to be withdrawn by a fine aspirator. Suppuration is apt to be followed by thickening of the walls or outer portions of the glands, and in these cases the oleate of mercury (ten per cent.) is most valuable. He does not believe that the cure of these cases renders the patient more liable to phthisis; he has seen many cases of phthisis develop where glandular enlargements had existed untreated; but he knows of none where pulmonary disease has followed the cure of such cases. On the other hand, he thinks that phthisis is more likely to follow the spontaneous breaking down of glandular tissue.

Mr. S. Messenger Bradley divides the morbid lymphatic tumors of the neck into three classes. 1. True hypertrophies, with or without a strumous diathesis, and showing no tendency to break down or undergo pathological change. 2. Strumous hypertrophies, consisting of cellular hyperplasia, plus caseous deposit, which after a time soften either in patches or entirely, until the gland becomes a mass of soft strumous matter. 3. Hard non-infectious lymphomata. For several months past he has injected the harder lymphatic tumors with a few drops of tincture of iodine, with the almost invariable result of causing a rapid diminution of the gland, going on to complete absorption. As a rule, two or three injections of from five to fifteen minims of the simple (P. B.) tincture of iodine are sufficient to effect a cure. No other treatment is necessary. He does not claim that this treatment is correct for all lymphatic tumors, and if used indiscriminately it undoubtedly will fall into disfavor. He makes the following divisions: 1. Cases to be treated by injection of iodine: (*a*) True hypertrophies of cervical glands without scrofula; (*b*) strumous hypertrophies of cervical glands before they have broken down; (*c*) hard (non-infectious) lymphomata; (*d*) all encapsulated tumors, as a tentative operation. 2. Cases to be treated by incision: Lymphatic tumors that have either broken down into pus, with or without previous injection of iodine. 3. Cases of cervical tumors to be treated by extirpation with the knife; (*a*) strumous glands which form tumors riddled with soft patches, and rest on a base of suppurating cellular tissue, with a large area of blue skin: (*b*) encapsuled tumors which have resisted treatment by injection.—*Trans. Brit. Med. Ass.*—*Brit. Med. Journal*, Aug. 28, 1875.

On the Lymph and Lymphatics of the Liver.—Dr. Fleischl, observing that lymph obtained from the portal system of the dog after ligature of the ductus choledochus had a yellow tinge, concluded that this must be due to bile. After numerous experiments on curarized dogs he arrived at these results, viz., that when the natural channels for the bile are closed it makes its way into the lymphatics of the liver, and thence into the blood by the way of the thoracic duct; also, that if, besides the biliary, the thoracic duct be ligated, no bile, or only the merest trace, enters the blood. He thereupon sought, by means of injections, to learn in what way it passes from the bile ducts to the lymphatics. Making use of an injection of asphalt dissolved in chloroform, he found in the livers of rabbits that the solution passed from the bile capillaries into the lymph-vessels, those about the portal vein and under the capsule being filled. In the course of these experiments he also observed in the connective tissue surrounding the hepatic vein, lymph-vessels which emptied into the branches on the diaphragm, and judged that the lymph might escape from the liver in this way also. On dissecting out the twigs of the hepatic vein, and examining the enveloping connective tissue under the microscope, he found that it consisted of a network of coarser and finer filaments, resembling connective tissue, in the meshes of which were situated the hepatic cells. By another mode of examination he found that the coarser connective-tissue networks closely resembled in structure the external investment of the hepatic veins, but differed from them in being extremely delicate. They extended into the substance of the liver acinus, and did not merely invest the acinus, as hitherto supposed. The finer filaments have been described as the tunicæ adventitiæ of the capillaries. After injecting the bile ducts with osmic acid, Fleischl succeeded in demonstrating a further network of threads, having the character of the network of the biliary capillaries, and which should be regarded as such. He thinks his anatomical investigations raise serious objections to the present view of the formation of the bile in the liver-cells, and its subsequent passage into the bile capillaries.—*Bericht der k. Sachs. Gesellsch. der Wissenschaften.*—*Rundschau*, Aug., 1875.

A New Solvent for Salicylic Acid.—M. Rozsyay states, in a communication to the *Pharm. Centralhalle*, that he has found in the sulphite of soda an agent which increases the solubility of salicylic acid, as well as its antiseptic properties. One part of salicylic acid, with the addition of two parts of sulphite of soda, dissolves in fifty parts of cold water, and forms a clear solution, which is not in the least degree irritating to an open wound. As a disinfectant he uses one part of the acid with from one to two parts of the sulphite of soda in from fifty to a hundred parts of water.—*Med. Chir. Centralbl.*, 1874, 26.—*Rundschau*, Aug., 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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MEDICAL PROGRESS IN AMERICA.

We were not a little surprised to learn recently that a prominent London author asserted that medical books had a better sale in America than in London, and that this was particularly the case with English works. This is an admission which has a peculiar significance, as bearing upon a reputation which we have heretofore borne with our cousins for a want of concern in medical progress. There is no doubting the fact that the American medical profession is fast developing a habit for study, and an appreciation of its necessity, which augers well for the future. We have arrived at a point when we must cease to think of developing the country and turn our attention to developing ourselves. The medical requirements of our country are no longer so urgent as to require the services of indifferently educated physicians rather than be without them altogether. The number of the well-educated is now sufficiently large, scattered as they are over the length and breadth of the land, to meet the demand for thoroughly competent practitioners—in fact, with our present system of graduation, we are fast arriving at the point, if we have not already attained it, of overstocking the market. Naturally enough, the necessities of the case stimulate an active competition to excel, a generous rivalry to deserve a patronage which shall insure the requirements of a decent livelihood. Not only in the metropolitan centres, but in the most remote hamlet, this competition is active, for nowhere are any spare places vacant which enable any one practitioner to claim the unquestioned monopoly of the practice of any community. The same law which holds good in ordinary trade has an equal application to strictly professional pursuits—the greater the competition the greater the progress. There is no question that the one and only way to succeed is by a determination to keep up to the times, to be thorough and untiring students in our art, to strive in any and every possible way in our power to avail ourselves of all the means of progress which the literature of our profession affords us.

As evidences of the right sort of understanding of the means to the end we notice the increased sale of standard works and the progress of medical journalism. As a notable example of the former fact we may refer to the flattering reception and substantial support of the publication of an Encyclopædia of Medicine, which is equal in extent and the number of volumes to a similar dictionary on general subjects. An enterprise, the failure of which a few years ago would have been a foregone conclusion anywhere, now commands a patronage in America which astonishes our European brethren. The undertaking has an importance which is far beyond any individual interests of the publishers, as affording not only an indication of the wants of the medical profession of this country, but of its determination to supply these wants. A short time since a leading newspaper alluded to the success of this stupendous work as one of the arguments to prove that the medical profession here led the van of all the educated classes in an enthusiasm for the study of their science.

But this, although a remarkable example of its sort, is by no means the only one which proves that we are waking up our energies for professional development.

The progress of medical journalism has of late been quite decided. It is true that numbers of journals have come into existence only to die, but this can hardly be laid to the blame of any lack of appreciation of the merits of journalism *per se*. The general explanation of this fact is, that those periodicals which failed were unworthy of success. There were never too many journals, but too few good ones. We believe the mistake has been in having too many periodicals which have been the organs of local influence. This has had a tendency not only to reflect discreditably upon legitimate journalism, but to rob it of much of the support and influence which was its due. It does not follow that because a village newspaper fails, a metropolitan daily should not succeed. We have no desire to uphold the larger journals which are published in medical centres at the expense of saying a good word for the many excellent ones that come from our smaller cities; but as we believe in the survival of the fittest, we are ready to prove that the metropolitan journals have the best chance. There is no lack of contributors to medical literature throughout the country; in fact, for reasons already stated, they are increasing every year; neither is there such a lack of appreciative readers to explain why medical journalism does not succeed better. But a great deal of the support to current medical literature runs to waste. Very many of the small and local journals are accountable for this. A college or a society organization feels that the interests of general medicine demand that it shall have an organ, and this being concluded, as a matter of course this organ must be supported pecuniarily and by literary contributions. As few outside the influences of the particular clique who publish the journal feel any interest in the success of the undertaking, the whole support necessarily falls on a comparatively few. As a natural consequence the journal fails; all the labor goes for nothing; all the papers specially written for the periodical drift into the oblivion of the rag-shop; the publishers are discouraged, the editor disgusted, and all who have been directly or indirectly interested in the undertaking are too willing to admit that the profession is behind the times, and has no appreciation of medical literature. These enterprises have, undoubtedly, a very bad effect upon real progress. How much better would the true interests of medicine be subserved by transferring all such supports to well-established metropolitan journals. Instead of having really valuable papers buried with the periodical in which they appear they could have a large audience and be preserved among the permanent records of our profession, doing good to all. Instead of taxing to the utmost the pecuniary capabilities of its few supporters, the same amount of outlay might give the contributor a subscription to every leading medical journal in the world. This narrowing of the influences of medical journalism is an evil which will eventually work its own remedy, the same as it has done in older countries. We are constantly hearing of the success of medical journals in Great Britain, but we forget to acknowledge that it is due in most part to a more or less concentration of local influences into central enterprises. We must recollect that these journals are published from the medical centres—in other words, the medical centres supply the whole kingdom. The encouragement of medical journalism in Europe is not much, if any, greater, in proportion to the medical population, than it is here, the only difference being that the varied interests are more apt to revolve around and acknowledge a common centre. But, as we have already remarked, we are pointing in this direction. The presumption that journalism is, on the whole, a failure in this country does not prove that we have not abundance of material to insure progress, but that we lack the means to direct our energies for progress in the proper channels for the greatest usefulness. Not only are we developing students, but the number of original workers is rapidly increasing in our midst, and American authorities are beginning to be respected on the other side of the water; not only are American works favorably received there, but American medical men are almost invariably treated with distinguished consideration.

America, it is true, is confessedly behind every other country in medical college education, but we have still hopes that she will in this, as in other matters, prove herself equal to the necessities of the times. Some of the drawbacks to medical journalism have a parallel in the medical college system. There are too many small colleges over the country that absorb the influence and support which legitimately belong to the metropolitan schools. Already there are evidences of a strong professional sentiment in the proper channel, as is afforded by the steady increase of medical students in the latter institutions, and the proportionate falling off of attendance upon smaller schools. Taking everything into account, there is much need for encouragement; and while we strive to interpret aright our own position in relation to medical progress, we should not lose sight of the fact that there is still an abundance of room for improvement, an abundance of opportunity for the exercise of all our enthusiasm, and for the gratification of all our ambition.

MEDICAL REPRESENTATION IN THE SCHOOL BOARD.

In another column we publish a letter on the sanitary care of our school children which should freshen the interest of the profession in this important subject. Dr. O'Sullivan, who has given so much attention to this matter, makes some statements in regard to the present school management, which offer much food for serious reflection. We agree with him in the recommendation to have the medical profession well represented upon the Board of Commissioners, and have so repeatedly advocated it that it has almost become a hobby with us. There will soon be some vacancies to fill, and this will be a favorable opportunity for his Honor the Mayor of showing how he can respect the wishes of the medical profession of the city.

THE NEW YORK HOSPITAL VACANCY.

In the coming struggle for a position on the Staff of the New York Hospital, the claims of quite a number of applicants will probably be presented. The college influence will be strong. This is as it should be, for, as every one knows, the Hospitals were made for the Colleges. As we are in favor of a fair division of the spoils among the contestants, we would suggest that the appointing power consider the special claims of such as already have a number of hospital appointments. The principle which governs the chances of their positions is usually founded upon the fact that the more one has, the more he should have. There is one gentleman who holds eleven of these positions in the different medical charities, but as we understand that he is not an applicant, there is a reasonable chance for the next best man.

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Medical Congress at Brussels.—The International Congress at Brussels was opened by the King of the Belgians, with great ceremony, on September 18th. His Majesty was warmly cheered by the assembly. Dr. Vlemincks was elected president, and Dr. Warlemont secretary-general, both being Belgians. Out of compliment, however, to the different foreign medical celebrities present, several honorary presidents were also elected, viz., Drs. Bouilland, Jaccoud, Larrey, and Verneuil (France); Mr. Bowman (England); Drs. Semmola, and Palascian (Italy); Drs. Langenbeck and Graefe (Germany), and Drs. Sigmund and Hebra (Austria).

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 22, 1875.

DR. F. DELAFIELD, PRESIDENT, IN THE CHAIR.

DIAPHRAGMATIC HERNIA.

DR. DRAKE presented a specimen of diaphragmatic hernia removed from a man aged 42 years. Two years ago, while at work on the 4th Avenue improvement, he was injured by a heavy stone falling on his back and driving his knees against his chest. He was examined by a physician, was told that he was hurt internally, and was sent to the 99th St. Hospital. There he remained for some time, during which period he vomited blood quite a number of times. He also had a great deal of pain in the left side, about the lower border of the ribs. He never enjoyed his usual strength, although he was able occasionally to work. On the 24th of August, while so engaged, he was seized with griping pains; these were temporarily relieved by an anodyne. Being at the time constipated, and thinking that his pains might be due to such a condition, he prescribed cathartics for himself, without, however, any relief.

On the 27th of August the patient was admitted to the Hospital (Charity). On admission there was a slight tympanites, but the abdominal walls were not rigid, and there was no tenderness on pressure at any point.

This continued for three days, and being constipated he received one or two injections, and his pain was relieved by opium. His pulse was slightly accelerated, but there was no fever.

On August the 31st he was seized with nausea and vomiting. The tympanites increased very much, the abdomen became rigid, and there was tenderness in the left hypochondrium. His pain became more intense, and extended across the abdomen into the right iliac fossa. The second day the vomited material became of a dark brown color. He gradually sank, and died on September 2d.

The autopsy was made by Dr. Bacon. On opening the abdominal cavity the intestines were very much injected, and were matted together by a fibrinous exudation. The abdominal cavity was filled with fecal matter mixed with some dark fluid. The splenic flexure of the colon was found protruding into the pleural cavity through the diaphragm, carrying with it a portion of the omentum. The hernia was strangulated and black. Just as the intestine passed into the opening was a spot of ulceration. In the pleural cavity there was four ounces of blood. There were no adhesions in the pleural cavity, nor any other evidences of pleuritis.

TAPPING IN OVARIOTOMY.

DR. SELL presented two vials containing the contents, respectively, of two ovarian cysts which he had tapped. The first fluid was of a brownish-red color, and was removed from a woman with the following history:

She came to this city, on the 12th of June, from Greenport, Long Island. She was then very large, and was suffering a great deal from pain. Having travelled all night by boat, and being compelled to sit up throughout the whole journey, she was considerably exhausted on her arrival, and only called on Dr. Sell that afternoon for an opinion. She had been tapped twice during a period of three months. The last operation was performed in a very unskilful manner by a lancet, giving exit only to a half of the contents of the cyst. This operation was, according to her account of the symptoms from which she afterwards suffered, quite a disastrous one. She evidently suffered from peritonitis, the result of the escape of some of the contents of the sack into the abdominal cavity.

The patient was tapped by Dr. Sell that same afternoon, and forty pounds of fluid (sp. gr. 1.020), containing pus, blood, epithelial scales, and the regular ovarian granules. She was at once relieved of her symptoms, and was able to return to Greenport the following Monday. Being in rather emaciated condition, she was sent home to recruit and prepare herself for the operation of ovariotomy. He had since heard from her that she had filled larger than ever, but was in splendid condition otherwise; all of which seemed to Dr. S. to prove the advantages of judicious tapping.

The second fluid, which was of milky leaden color, was taken from a German woman, aged 33, who after having run the gauntlet of ten unsuccessful diagnoses from as many different medical advisers, finally came to consult Dr. Sell. She commenced to menstruate when she was fourteen and a half years old, and continued regular up to two years ago. The intervals of her catamenia varied from once in four to once in eight weeks. She was married when she was twenty-four, but had never been pregnant.

During the month of April she noticed that her abdomen began to enlarge, and then began the series of consultations which so materially helped to make her lose confidence in the diagnostic art. She was variously treated for fever, suppression of the menses, change of life, disease of the liver, lungs, kidney, in fact for every disease save the right one, until Dr. Sell saw her. On that occasion she visited the Eastern Dispensary in a very enfeebled condition, from a diarrhœa, from which she had been suffering for some time. She was then informed that in addition to catarrhal diarrhœa she had dyspepsia, hepatic engorgement, and ovarian disease, and that in all probability the contents of the cyst were discharging per rectum. Dr. Sell drew off about a quart of the fluid presented, when the patient was relieved and improved in all her symptoms.

CONGENITAL SARCOMA OF RADIUS.

DR. POST presented a specimen of congenital sarcoma, which was situated in the lower part of the forearm, corresponding nearly to the lower half of the radius. Dr. Post saw the child, with Dr. Warner, when it was about a fortnight old. The tumor had been noticed at the time of birth, when it had a certain degree of hardness. The integument was of a reddish color, and presented a vascular appearance, suggesting the idea of malignancy. It was at first agreed that an attempt should be made to discuss the growth by means of electrolysis, but it gave rise to such a formidable hemorrhage from the places where the needles were inserted that amputation became imperative. The operation was performed on the thirty-second day, the section being made at the elbow-joint.

The specimen was examined by Prof. Arnold, who described it as a soft sarcoma with oval and fusiform cells and slight traces of atheroma. The mass seemed to be connected with the periosteum covering the radius. There was no history of malignant disease in the family. In conclusion, he remarked that the specimen in question was of great rarity.

DR. DELAFIELD referred to similar ones reported by Mr. Bryant in the last volume of Guy's Hospital Reports.

SPINAL CORD COMPRESSED IN CARIOUS VERTEBRÆ.

Dr. V. P. Gibney presented a specimen of spinal cord with the following history:

On the 18th day of August, 1874, Albert Stuckey, a poorly nourished boy, 6 years of age, was admitted to the Hospital for the Ruptured and Crippled. Ailment: caries of the dorsal spine, eighteen months' standing, with consequent paraplegia of four months' standing. The father, a moderately healthy man, reported that the child had always been delicate, and that the mother died an epileptic. No reliable history of a fall obtained.

Examination revealed a marked prominence of the middle dorsal vertebræ and the anterior thorax, no sign of congestive abscess, and a complete loss of voluntary power in inferior extremities, with reflex excitability preserved, a tonic spasm of flexors and adductors, and tremor on passive motion. The sphincters were very deficient in contractile power.

A spinal brace was applied, and each day the boy was placed on his feet. In October an ophthalmoscopic examination revealed a congested disk, nothing more.

By the following February the excreta, in spite of the utmost vigilance a hospital can command, had caused considerable excoriation over nates and thighs. These were soon relieved, but an occasional diarrhœa, with a toneless sphincter, would thwart all efforts at repair. Ultimately bed-sores formed over the trochanters. Finally, on August 9th, personal attention was begun. With carbolized water he was sponged and shampooed twice a day. Stimulants and tonics were used unsparingly. Within a week great improvement. A chill, however, on the 23d, with hurried respiration, called my attention to the thorax, and, anteriorly, to the right, were heard crepitant râles, well marked on the second day. Large doses of quinine once a day as an antipyretic were only partially successful. The pneumonia was completed by the fourteenth day, but a fatal adynamia followed, so extensive had been the sloughing about the nates, and death supervened on September 13th.

At the autopsy, ten hours after death, Dr. E. G. Janeway officiated, and the following notes were taken: Body extremely emaciated, bed-sores over each hip, marked spinal curvature from the first to the twelfth dorsal vertebra, forming rounded arch with the summit at sixth, seventh, and eighth. Lungs slightly œdematous, with a few subpleural ecchymoses and adhesions, most marked on left side. Heart and kidneys normal. Liver appears normal, with the exception of a slight, possible waxy change.

On opening body, lying in the spinal concavity was found a sac, two inches vertically and three and a half laterally. The contents—a cheesy, curdy mass. Walls formed by anterior common ligament, thickened connective tissue, and pleura. On making vertical section of spinal column, from before backward, body of eighth dorsal vertebra entirely gone, seventh nearly so, and sixth and ninth partially. Pultaceous matter lay in place of the eighth, pressing on the spinal cord, which at this point was found anæmic, yellowish, and smaller in size. The absence of blood-vessels here was notable. (The cord is now in process of hardening for microscopic section.) A portion of the gastrocnemius under the microscope showed granular and fatty globules, muscular striæ lost, and occasionally a homogeneous mass.

Dr. Janeway remarked that the interesting point in the case was the absence of blood-vessels in the portion of the cord presented. This portion corresponded to the point of pressure, and was doubtless caused by it. It belonged to a series of cases in which recovery was easily explained by the subsequent restoration of motion, the result of the establishment of circulation in that part by the removal of pressure.

Dr. Delafield asked if inflammation of the cord would not produce subsequent atrophy.

Dr. Janeway did not doubt the fact, but he had never seen such a case recover.

Dr. Post referred to a case which had come under his observation, and in which, from disease of the vertebra prominens, there was a paraplegia which had been permanent, existing during the whole of a period of four years, while the patient was under his observation.

Dr. Polk, in this connection, referred to a case of paraplegia which had died in Bellevue Hospital. The autopsy had been performed by Dr. Delafield, and there was neither disease of the spine nor of the cord to explain the symptoms.

The Society then went into executive session.

Correspondence.

PENETRATING GUNSHOT WOUND OF ABDOMEN—PASSAGE OF THE BULLET PER RECTUM—RECOVERY.

To the Editor of The Medical Record.

Sir:—I beg leave to add the following case to the similar ones already reported by different correspondents:

A healthy soldier—one of the so-called "Louisiana Tigers"—was wounded at the battle of Gettysburg, July 3d, 1863, by a rifle bullet penetrating the abdomen, just at the point of the ensiform cartilage. He reported that he was considerably stunned and continued insensible for some time, and was obliged to lie where he fell until the 5th—two days—when he was removed on a stretcher to the Presbyterian Church Hospital. The wound presented the ordinary appearance, seeming to involve the stomach at the lesser curvature; abdomen somewhat tympanitic, very tender on pressure down to umbilicus; knees drawn up; but little pain complained of, except on motion. He was made as comfortable as possible; the wound cleansed and treated with water dressing, and morphine administered, together with suitable nourishment.

On the 7th he was suddenly seized with very severe colic, accompanied by vomiting so obstinate that, other remedies failing, chloroform had to be used for several hours, when entire relief was obtained. No other unpleasant symptoms occurred, and the case progressed favorably, the patient feeling well, with a hearty appetite and a good digestion, the bowels moving naturally every other day or so, the passages, at first dark and tar-like, becoming healthy in time.

On the 13th—ten days after being wounded—he passed the bullet, imbedded in a mass of natural fæces. It was a little flattened on one side, towards the point, as though it had glanced off some solid obstacle—perhaps his belt-plate. After this he improved rapidly, the symptoms of peritoneal inflammation disappeared; he refused to remain in bed any longer; took the regular convalescent fare, reporting daily at sick-call for about two weeks, when, appearing perfectly well, he was sent away with other prisoners.

Surgeon W. H. Rulison, of the 9th New York Cavalry (afterwards killed in action), and Assistant Surgeon George McGill, U. S. A., took especial interest in the case, and the bullet was given to Surgeon Brinton,

U. S. V., for preservation in the Army Medical Museum.

Penetrating Gun-Shot Wound of Abdomen—Death in Seventeen Days from Pyæmia.

At a subsequent period I made a post-mortem examination of a soldier who had been wounded by a compound rifle bullet, in the left hypochondrium, just below the margin of the twelfth rib, and lived seventeen days. I traced the bullet into and out of the stomach, one portion passing down the left side, along the spine, and lodging in the psoas muscle; the other, accompanied by a shred of his blouse, burying itself in the right kidney. In this case, after seventeen days, and a journey of nearly a thousand miles in railroad cars, steamboats, and ambulances, the stomach was found partially filled with food in process of digestion, quite healthy, and not at all inflamed or softened, only slightly congested, and indurated to some extent around the wounds, which were entirely healed and closed perfectly, death being caused by pyæmia from psoas abscess and ulceration of the kidney, thus fairly proving that the stomach is not liable to take on morbid action of a fatal character from penetrating wounds, unless tortured into inflammation by the probe, or otherwise unskilfully treated.

In connection with the case lately reported by Dr. O'Meagher, of New York, I venture to think the foregoing cases may not be uninteresting.

H. D. Vosburgh, M.D.

Lyons, N. Y., *August* 19, 1875.

GUNSHOT WOUND OF ABDOMEN.

To the Editor of The Medical Record.

Dear Sir:—The three cases of gunshot wounds of abdomen, recently reported in the Record, recall to mind a very singular case, which occurred in my regiment during the late war.

Private R. S. Langworthy was wounded at the battle of Drury's Bluff, on May 16, 1864. The ball entered at the umbilicus, making a somewhat lacerated and large wound, considering the size of the missile. A portion of the ileum protruded, so that when I first saw him in the evening, after the battle, the hernia was as large as my fist. With the valuable assistance of Dr. Squires, of the 89th N. Y. Vols., and the late Dr. Snow, of the 100th Engineers, we succeeded, after carefully washing the intestine with warm water and condensed milk, in replacing it. He had been without nourishment all day, and when we finished dressing the wound he was so much prostrated that we had but little hopes of his recovery; however, we gave him the best care our little field-hospital could afford, and in the morning he had rallied nicely, and was in good spirits. We found it necessary to catheterize him for four or five days, when he so far recovered that he could void his urine with but little difficulty. And I sent him to Hampton Hospital, at Fortress Monroe, about twelve miles in ambulance and forty-five miles by transport. He had been at the hospital five weeks when he voided the ball. A few weeks after he was sent home to Brookfield, in this county, where he now resides, and has fair, but not good, health, as he has not recovered from the effects of the wound. The wound healed in nearly six months, leaving a large umbilical hernia.

H. W. Carpenter, M.D.,

Oneida, New York. Late Surgeon, 117th N. Y. Vols.

MEDICAL REPRESENTATION IN THE SCHOOL BOARD.

To the Editor of The Medical Record.

Sir:—The article on "Sanitary Reform in our Schools," suggests a few reflections which with your permission I will briefly state. Before doing so, however, permit me to say that I have read the article referred to with interest. The suggestions are made with the precision and comprehensiveness which have characterized your editorials since the question of "Sanitary Reform in our Schools" has been mooted. In a review of my first Annual Report to the Department of Public Instruction of this city, April, 1872, the necessity of medical inspection was clearly demonstrated, and remarks were made commendatory of the institution of medical inspection by the late Board of Education. The article gave the public and the profession a view of the unsanitary condition of our public schools, of which they had not up to that time any adequate knowledge. The suggestions made in reference to the action of the section on public health of the British Medical are good as far as they can be practically applied to our system of public instruction. Past experience gives us no ground to expect that suggestions made by health officers to school boards would be properly tested, or that any practical effect would ensue. A proposal requiring a certificate from a medical officer of health as to the construction of school buildings, and their adaptation for educational purposes, might be carried out in Great Britain, but it is doubtful if such a wholesome sanitary provision would be successfully enforced here, as political interference would no doubt naturally modify the results. There has been scarcely any change in the construction of our school buildings for the past twenty years. The same defects as to contruction of class-rooms, heating, seating, still remain. I could go on enumerating, did space permit, other grave sanitary defects in the construction of those buildings of which our school managers seem to be entirely ignorant, and they obstinately ignore all suggestions tending to correct them. The more we investigate this matter, the more glaring the defects appear. That a reform in our school management is necessary no sane person can doubt. This desirable result is not likely to occur until there is a change in the personnel of the present school board—a result, it is hoped, that will soon ensue, as there has been lately several resignations, and the term of a third of the members expires this year. Should we not have a representative of the profession as a member of the Central Board of Education? The physical wants of 100,000 children demand it; lawyers, bankers, and politicians are there, but no physician. Is it not time, Mr. Editor, that this subject should be considered, and the claim of the profession recognized?

Respectfully yours,

R. J. O'Sullivan.

Instruction in Cooking.—The School Board of London has arranged to have three hundred girls, selected from its schools, taught the art of cooking by the teachers of the National Training School. Five free scholarships have been offered by the Society of Arts, and the Educational Department gives about one dollar a year to public schools on behalf of each girl who is taught cookery according to the recognized code.

"SUCCESSFUL PRACTITIONERS."

To the Editor of The Medical Record.

Mr. Editor:—I have been much amused, and I hope edified, by the perusal of the letters of your correspondents "Diploma" and "Success," but I was totally unprepared for such a shock as I received upon reading the communication of M. D. V. S. Even now, I can scarcely believe that it is not a huge joke, perpetrated by some quizzical *successful* practitioner. There was a time, sir, when it was deemed an honor to belong to a learned profession—when a degree in divinity, law or physic conferred dignity upon a man; but O tempora! O mores! how have the professions fallen from their high estate. Quackery abounds in all of them, but the temples of Æsculapius have been most befouled by his priests.

Under the pretext of ministering to the public weal, we have advertising in its most specious forms. We find dispensaries, private and municipal, parading their special advantages, thereby cheapening physic, and indirectly calling attention to the superior qualifications of their medical staffs. We have medical bath-houses, mineral springs of all kinds, with "medical directors" or superintendents in charge; "homes for invalids," "private hospitals," and "retreats" of all sorts kept by medical boarding-house keepers, who board, lodge and physic their patients for a consideration. Then we have medico-chirurgical *tradesmen* or *mechanics*, under which heading may be classed the makers of artificial legs, braces, abdominal supporters, etc, who flaunt their easily acquired M.D. in every public print, and trade under the grandiloquent titles of orthopædic or mechanical surgeons, electricians, etc., etc. Passing by (with due reverence) the female doctors (why not doctresses?), we come to the dentists—always a most useful but humble class—whose use of that absurd degree "D.D.S." has played sad havoc with that ancient and reverend title Divinitatis Doctor. And here let me ask why the cuppers, leechers, barbers and nurses are left without a degree? We have already Tennessee "Doctors of Pharmacy" to confuse with the Ph. D.'s; and to cap the climax, we are to have doctors of veterinary medicine, "*a sister branch*" of our divine art, as your correspondent M. D. V. S. most facetiously calls it.

Heaven help the profession of physic, when its disappointed members shall be obliged to become "horse doctors," even though "the financial rewards be satisfactory to the most sanguine." Seriously, Mr. Editor, did your correspondent M. D. V. S. intend to insult the profession? E. N. R. O. B. E. L. C.

Portsmouth, N. H., 28th September, 1875.

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THE ELECTROLYTIC TREATMENT OF TUMORS.

To the Editor of The Medical Record.

Sir:—In the issue of the Record for Oct. 2, Dr. Comegys raises the interesting and practical query, whether electrolytic treatment may not, in some cases, change a benign into a malignant tumor, or hasten the growth of a tumor already malignant.

In answer to this query I may present these conclusions, drawn from my own experience:

1. Large, solid malignant growths, that are rapidly growing, may have their growth hastened by the irritation of electric treatment. I have seen this effect produced in one case of scirrhus of the female breast, and only in that case, although I have treated a large number of malignant tumors in this way. I have used only the galvanic current, with the needles; never the faradic, except externally.

The claims which have been made, that electrolysis causes rapid and permanent absorption of hard, solid, malignant growths, and ultimate cure of the constitutional taint, have not been confirmed by my experience, nor by the experience of any with whom I am acquainted.

2. It is entirely conceivable that a tumor such as Dr. Comegys describes, already sufficiently malignant, to recur after removal, might become more so, and might have its growth hastened by three months' treatment with needles, connected with the *faradic* current. Treatment, such as that, is not called for in any case of tumor, malignant or benign. Those of us who accept the theory, that malignant tumors are excited, in some cases at least, by local mechanical injuries acting on a predisposed diathesis, will find it not difficult to believe that the faradic current (the effect of which is mainly mechanical) might, when introduced recklessly and for an excessively long time through needles, heighten the malignancy of a tumor.

3. Cystic malignant tumors may be greatly reduced in size, and their progress apparently arrested by electrolysis.

One striking case of this kind—a large malignant cystic of the female breast—was reported by me about two years ago. The patient, at latest accounts, was well, although a small lump remained in the breast. Before treatment by electrolysis immediate removal had been advised and urged by competent and careful surgeons.

4. All painful tumors, whether solid or cystic, may have their pain relieved by electrolysis, or by single external electrization, even when they are rapidly extending and have arrived at the hopeless stage. This result is a matter of frequent demonstration.

5. If electrolyses be used at all for solid, rapidly extending malignant tumors with the idea of eradicating them, the needles should be inserted in the base of the tumor, or the base may be worked up electrolytically after the tumor has first been removed in the ordinary way. This method of treatment that I have used for four years is in the same line as that by arsenic paste, and like that, it seems to have theoretical and practical advantages over the ordinary methods, provided the disease be not too far advanced.

There would appear to be less liability to shock after electrolysis than after cutting operations, since the stimulus of the current apposes a tendency to shock. Furthermore, there would seem to be less danger of pyæmia after operation by electrolysis or galvano-cautery than after similarly extensive operations with the knife or ligature. I form this opinion, which it is impossible to prove statistically, from watching the results of very many operations in various parts of the body, and from the general experience of surgeons with whom I have conversed on the matter.

6. In nævi, external and subcutaneous, in goitres of moderate size and consistency, in benign cystics and in some fibroids, electrolysis has oftentimes great advantages. Much depends, however, on the nature and locality of the tumor and the details of the treatment. Geo. M. Beard.

To the Editor of the Medical Record.

Sir:—In the Medical Record of Oct. 2, there is a report of a case of recurrent tumor of the neck, and it is stated that in the treatment, the interrupted current, that is the faradic or induced current, was employed, and the conclusion arrived at was, "that this electric treatment converted this recurrent fibroid into a malignant tumor, or at least very much hastened its degeneration into one." Now for the removal of tumors, certainly a strong chemical or electrolytic effect is required; why then should the faradic current be employed, which as developed in the ordinary induction instrument has scarcely any electrolytic action? That is employing an agent to perform a certain work which it is not capable of doing, for the faradic current is strongly stimulating, but not capable of developing electrolytic action.

The difference between the two currents is not, as stated, one only of *tension*. To quote from Onimus in the "Practitioner" for Sept., 1874, when speaking of the difference of action between the induced and continuous currents, "Induced currents having a great tension, will cross tissues very easily, and determine a molecular shock, but will exert *no* chemical action;" and of the constant current, "It is during this silent period, when nothing seems to act, when the organs are in apparent rest, that the principal action of the continuous current makes itself felt in the depths of the tissues; it is during this period that are produced electrolytic effects, phenomena of transferment and influences of orientation, all which things never exist with induced currents." The difficulty not only in this case but in others, appears to consist in confounding the therapeutical effects of the faradic and galvanic currents; in fact, not only are the two currents different in their action, but as experimentally proved by Radcliffe in his "Dynamics of Nerve and Muscle," the positive and negative continuous currents produce disproportionate effects: the muscular contractions of a prepared frog, on closing and opening the circuit, coming to an end in 60′ in the one case and in 15′ in the other case.

The want of success in this case should not then be attributed to the electrical treatment, since the current employed has no deobstruent effect.

It is also stated that "the principal other methods of treatment are by caustics, ligature and the knife," thus ignoring that most excellent and highly successful treatment by the galvanic cautery.

David Benson, M.D.

Hoboken, N. J.

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A Large Mouth.—*The Medical and Surgical Journal* says that Dr. Robinson, of Rome, N. Y., took the impression of the jaw of a colored woman, which measured three inches from front to back, and three inches across, the usual dimensions being only one and a half by two inches. This is said to be the largest mouth known to the dental profession of this country.

M. Lehnert, veterinary surgeon, reports a case of Cæsarean section in a cow suffering from phthisis pulmonalis, and on the point of death. The operation was so far successful that three healthy calves were brought into the world, and, he adds, were afterwards successfully raised.

Sir C. Locock left a property valued at something less than one hundred thousand pounds; the most noticeable provisions of his will being that his remains should be buried in Kensal Green, in an unostentatious manner, and that, in the event of his death occurring from any obscure or doubtful disease, his remains should be subjected to post-mortem examination.

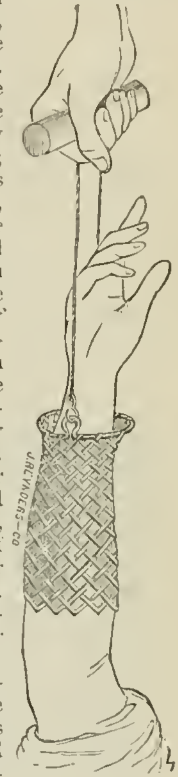
Scarcity of Physicians in Siberia.—Siberia, according to a report addressed to the Russian Government by General Kasuakose, has only fifty physicians. To remedy this deficiency, the Government has resolved to establish an university at Tonesk.

New Instrument.

AN APPARATUS TO FACILITATE THE REDUCTION OF DISLOCATIONS.

Many persons are familiar with the "Indian puzzle" made of basket-work in the form of a long cone, and may have been surprised at the tenacity with which it seized the finger, which they had inserted into the open extremity, when traction was made upon the other end. In 1847 Dr. Frank H. Hamilton called attention in the *Buffalo Medical Journal* to the use which might be made of this toy in reducing dislocations of fingers; and in the second edition of his work on Fractures and Dislocations, page 603, he gives a picture of the instrument. Dr. Oliver Wendell Holmes also recomended the Indian puzzle for the same purpose in the first Volume of the *Transactions of the Amer. Med. Assoc.*, but the probable reason why it has not been more generally adopted is, that these minor dislocations are, as a rule, reduced without the need for any other than the simplest means. Quite recently, however, some of our instrument makers have constructed an apparatus upon the same principle, but in sizes large enough to admit of its being applied to the arm, leg, or thigh, and we are indebted to Mr. Reynders for an opportunity to examine a set of these tractors and for the cut appended.

When a "good hold" is the desideratum, nothing could be more perfect; and to remove it, all that is required is to stop pulling and approximate the ends of the basket-work, and by gaining in breadth what it looses in length it becomes loose enough to permit the limb to move freely in or out.



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Anti-Vaccination in Montreal.—Of late years small-pox has been very prevalent in Montreal, especially among the French population, and in consequence the Provincial government recently passed an act to empower the municipal authorities to enforce vaccination. The attempt on the part of the authorities to do so has been resisted by the French Section of the community, under the leadership of a Dr. Codine and other physicians, and a mob of seven thousand persons assembled a few Sundays since, stoned the aldermen and gutted the house of one of the supporters of vaccination. The police seemed to be utterly powerless, and a severe epidemic of small-pox, which exists, is the natural accompaniment of the troubles.

Dr. E. Krackowizer.—At a stated meeting of the New York Medical Journal and Library Association, October 1, 1875, the President, Dr. Peaslee, announced the death of Dr. Ernst Krackowizer, and upon motion appointed as Committee to draft appropriate resolutions relating thereto, Drs. Noeggerath, Guleke, Althof, F. H. Hamilton, A. C. Post, and Gurdon Buck.

Obituary.

CYRUS WEEKS, M.D.

Dr. Cyrus Weeks, who was suddenly killed on the 20th of September by being run over by a train in the Morris & Essex R. R. depot, as he was about to go to his country home at Bloomfield, N. J., was the son of Captain Coles Weeks, a volunteer in the war of 1812, and was born at Sandbornton, N. H., on the 16th of November, 1806. Like his father, he was a man of tall and commanding figure, and in his general appearance was calculated to inspire confidence. His early education was received in the public schools and the academy of his native town, and in 1826 he commenced the study of medicine with Dr. Durgin, in Portland, Maine. In 1829 he graduated in medicine from the medical department of Harvard University, and in the following year commenced practice in this city, his office being successively at the corner of Grand and Elm streets; at Howard and Mercer streets, where he was associated with Drs. Dickson and Wooster; on Broome street, between Crosby street and Broadway; in Spring street, near South Fifth Avenue, and lately at 42 Clinton Place. Dr. Weeks was remarkable for his devotion to his professional duties, and during his professional career he acquired one of the largest practices in the part of the city in which he lived. He was equally noted, however, for his benevolence, and it is said that out of a practice worth at least $10,000 per annum he rarely managed to collect more than $4,000. His obstetrical practice was especially large, and it is also reported that he had attended more cases of labor than any other physician in the city.

During the several epidemics of cholera which have visited the city Dr. Weeks was an active worker, and twice contracted the disease. He was one of the two physicians appointed to investigate the causes and nature of the epidemic of typhus which visited the city in 1846 and '47, and the exhaustive report which they presented was mainly drawn up by him.

In addition to his labors as a physician Dr. Weeks found time to contribute to the secular press, and Godey's and the Knickerbocker Magazine contained several articles from his pen. His house was long known as the home and headquarters of many of the literary people of the city. Horace Greeley and Dr. J. W. Francis were among his common associates, and *The New Yorker* and *The Tribune* received many contributions from him while Mr. Greeley was alive.

The death of Doctor Weeks removes another of the class, already too few, who are spoken of as gentlemen of the old school, and leaves us a memory of one who, in his character as a Christian man and a physician, is worthy of close imitation by the generations who are taking his place.

* * *

Southern Medical Societies.—The Association of Medical Officers of the Confederate Army and Navy, and the sixth session of the Medical Society of Virginia, are to be held in Richmond, the former on the 19th, and the latter on the 20th inst.

Duchenne de Boulogne, whose illness we recently noticed, has since died, having suffered an apoplectic attack, from the immediate effects of which he partially recovered, but lived only a few weeks thereafter.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Oct. 3d, 1875, *to Oct. 9th,* 1875.

Smith, J. R., Surgeon.—Leave of absence extended 20 days. S. O. 197, Mil. Div. of the Atlantic, Oct. 2, 1875.

Webster, Warren, Surgeon.—To report to the Commanding General Mil. Div. of the Atlantic for assignment to duty. S. O. 201, A. G. O., Oct. 6, 1875.

Janeway, J. H., Assistant Surgeon.—To report to the Commanding General Dep't of the South for assignment to duty. S. O. 201, c. s., A. G. O.

Paulding, H. O., Assistant Surgeon.—Assigned to duty at Fort Ellis, Mon. Ter. S. O. 190, Dept of Dakota, Sept. 29, 1875.

NAVY.

October 10.

Kidder, J. H., Passed Assistant Surgeon.—Detached from temporary duty on board the *Blue Light* and placed on waiting orders.

* * *

The late Dr. Foster Swift.—At a stated meeting of the New York Academy of Medicine, held October 7, 1875, a Committee, consisting of Drs. John C. Dalton and G. M. Smith, presented the following preamble and resolutions, which were unanimously adopted:

Whereas, The members of the Academy have learned with regret of the death of their former associate, Dr. Foster Swift; therefore,

Resolved, That in Dr. Swift the Academy and the profession have lost a member whose personal character commanded the esteem of all who knew him; whose brilliant talents gave sure promise of future distinction, and who was eminently fitted by his superior attainments, his singleness of purpose, and his engaging manners, for a prolonged life of usefulness and success.

Resolved, That a certified copy of these resolutions be transmitted to the family of Dr. Swift, as an assurance of the sympathy of the Academy in his loss, and of their high appreciation of his personal and professional qualities.

Resolved, That a copy of these resolutions be published in the medical journals of this city.

Samuel S. Purple, M.D.,
President.
W. T. White, M.D.,
Secretary.

Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office, 27 Great Jones Street, one week previous, to insure their appearance.*]

Monday, Oct. 18th.—Section of Obstet. and Dis. of Women and Children, N. Y. Academy of Med., 12 W. 31st st.

Tuesday, Oct. 19th.—Med. Soc. of the County of Kings.

Thursday, Oct. 21st.—N. Y. Academy of Med., 12 W. 31st st.

Friday Oct. 22d.—Medical Library and Journal Association, 107 E. 28th st.

Original Lecture.

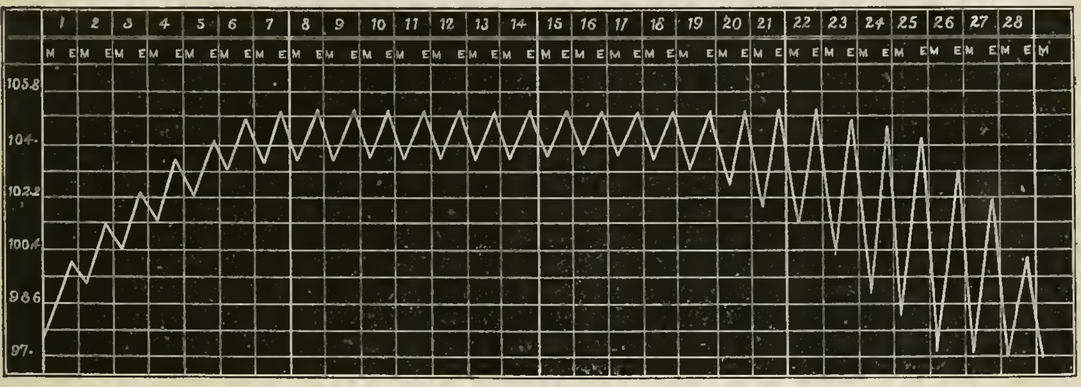
ON THE TREATMENT OF TYPHOID FEVER.

By W. H. THOMSON, M.D.,

PROF. OF MATERIA MEDICA AND THERAPEUTICS IN THE MEDICAL DEP. OF THE UNIVERSITY OF THE CITY OF NEW YORK.

Lecture II.

Gentlemen:—To illustrate the statements made towards the close of my last lecture, I here show you two charts—the first from Liebermeister, exhibiting a diagram of the typical thermometric range in a case of typhoid fever allowed to run its natural course. You see that during the first week the rise is steadily up to a figure which it maintains then with a general degree of evenness throughout the second and third weeks, but characterized by a morning remission and afternoon, or early evening, exacerbation. During the first week the evening point rises above that of the preceding day, so that the remission of the following morning occupies nearly the same level with the highest mark of the day before. During the fourth week the earliest indication of defervescence is seen in an increasing descent of the line indicating the morning remission, the high figures of the afternoon not declining till later.

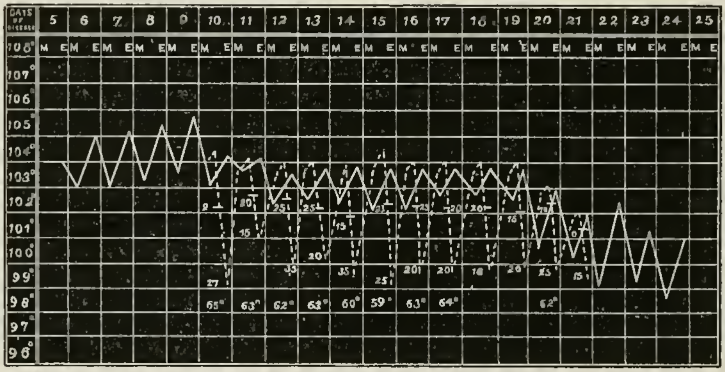


No. 1.

The second diagram represents the course of the fever in a patient of my own treated by ice-water baths, and which has been made by my friend Dr. F. H. Rankin, who also ably superintended the administration of the baths and took the observations. He was a young gentleman whom I was called upon to treat in July of last year, and I first saw him on the eighth day of the disease, he having contracted the fever when away from home, and as he thought, with much reason, from the water he drank in a neighboring city. It was well water, but he said that its offensive odor was such that he could scarcely drink it. When I saw him he had already considerable tenderness on pressure over the cæcum and violent diarrhœa, but this was soon checked without the use of astringents, as I will explain, and it never recurred during his whole subsequent fever. Meantime his fauces, tonsils and the roof of his mouth were covered with a white diphtheritic membrane, and his voice was much altered. Such exudations are to be met with occasionally in typhoid, and always indicate severity of infection. The next day his temperature rose to nearly 106°, and I determined to have recourse to the ice-water bath. He was in it on the first occasion thirty-three minutes before the thermometer had fallen sufficiently, as I thought, to have him removed. Now on the chart the dark line marks the mean morning and afternoon degrees, but the dotted line is introduced to show the effect produced by the baths; the figures at the top of the dotted line indicate the temperature of the bath; the figures at the small straight line crossing this below, indicate the number of minutes he was in the bath; and the figures at the bottom show how many minutes after he was removed to bed the temperature continued to fall; each cross line on the chart also enabling you to see to what an extent the total depression was. You will note also that the dotted line always begins with a rise, which represents the temporary exacerbation of the fever by the bath, to which we have alluded. Now in looking at this chart you see at once that the general range of the fever during the second and third week was about as uniform as in the first chart, but with this great difference, that the range of the two days preceding our beginning with the baths, was advancing to a most perilous height, from which it was permanently deflected to a lower and safer level. This was done by the administration of but two, and only twice, three baths per diem. Now it may seem to you that a daily change of but a degree and a half on the average does not amount to such an important difference, but that degree and a half extended over twenty-four hours would equal of itself the sum total of fever during a smart attack of ague, and I doubt whether the strongest among you, if he experienced an intermittent of that degree, would not feel as if he had lost a great deal of his accustomed power and vitality, though only for a day. When, however, you add such an exhaustion to the consuming pyrexia of typhoid it may easily be enough to prostrate fatally the sufferer.

The indications for reducing the degree of pyrexia have led modern physicians to seek for medicinal agents which would subserve this purpose, in addition to the abstraction of heat by the external application of cold. Chief among the drugs which have been demonstrated to lower the temperature of the body, both in health and in disease, stands quinine, when administered in sufficient doses. It has therefore become quite the fashion of late, among the German school of physicians especially, to give doses of from 30 grains and upwards for this one specific purpose. Thus Liebermeister recommends the administration of about 7 grains of quinine every ten minutes to typhoid-fever patients, until from 28 to 45 grains are taken, according to the case, and instances are recorded of 60 grains being given at one time. I have myself followed this plan in different diseases with a high fever, and believe that this treatment will hold its own in the future, rather than pass into the long category of epidemic medical hobbies. The idea in this case is not beset with those too general expectations which have brought so many theories and systems of practice to an untimely end. Quinine is not expected, in this connection, to do everything, as Dr. Todd's alcohol was, or as venesection in the ante-stimulation times. It is not given as an anti-periodic either, nor, I may add, from reliance on the vague word tonic, but simply because experiment has shown that, when taken in a certain way, this medicine will cause the thermometer to fall, and in fevers will accomplish this desirable result without any appreciable ill effects of its own to counterbalance the seeming advantage gained. As an apyretic, however, quinine must be taken in single large doses, for if the same quantities are distributed in divided doses during the twenty-four hours this effect of quinine is not obtained. If the patient's stomach is not too irritable, 30 grains had better be given at once; if you fear vomiting, then two 15 grain doses at an interval of half an hour, or else follow Liebermeister's method, though I have usually found that if the medicine is rejected small doses are as apt to be lost as larger ones. The fall in the temperature, in my experience, shows itself in about eight hours, sometimes not till twelve hours after it is taken. Hence the rule is to give it in the evening, after a cold bath has assisted in allaying gastric irritability, in the hope that it will increase the amount of the next morning's remission. This is especially desirable in the later periods of the fever, when the first sign of decline is in the lower morning figures. But in the second week I have often given the quinine in the morning for the purpose of reducing a too rapidly advancing afternoon range of temperature, and I think there can be no doubt that it greatly promotes the antipyretic influence of the baths by prolonging their impression. Hence, according to its apparent effects, should you increase or repeat its dose. Very often you will find, in the second or third week, that after a single dose of quinine the thermometer does not reach its former level for two whole days, and in that case the quinine need not be repeated for that length of time. Should no appreciable change be noted, however, then in twenty-four hours you may repeat the quinine in an increased dose, say 45 grains. It is uncommon for this mode of administration of quinine to produce any symptom of cinchonism in febrile patients, other than a transient deafness after the first dose, and I have frequently found that giving quinine in grain doses every hour will produce ringing in the ears, etc., while 30 grains in one hour produces nothing except lowering of the temperature, and occasionally a brief fluttering of the heart.

When both the cold baths and the quinine appear to fail in reducing the pyrexia to the desired extent, Wunderlich, Liebermeister, and other German physicians recommend recourse to digitalis in addition. I have no experience with this agent in typhoid fever, not having had a case which seemed to need it. It is contra-indicated in cardiac weakness occurring during fever, all authorities agreeing in its producing more harm than good when the pulse is both rapid and feeble. The mode of administration recommended in patients with a good pulse, not much above 100, is to give from 10 to 20 grains of the powder in pills in divided doses during twenty-four or thirty-six hours, and then follow this with an apyretic dose of quinine. During the past five years I have been experimenting in the Charity, Bellevue, and Roosevelt Hospitals, as well as in private practice, with a prescription of my own for reducing the temperature in phthisis, and after a long series of observations I feel that I can speak confidently of its success. The prescription is, ℞. Tr. verat. virid. ʒ i.; ext. gelsemini fl. ʒ i.; tr. aconiti rad. ʒ vi. Dose, five drops every three hours. After two or three days' exhibition I usually note a fall of one degree or more in temperatures varying from 100° to 102°. In a number of instances I have had very marked symptoms of accumulation occur after it has been given for a week or more, and in every such case the mixture did not seem to have produced any effects until the patients were rather suddenly affected with nausea and considerable prostration, requiring in some a free stimulation to cause them to rally. The invariable result after such an attack, however, was a permanent lowering of the temperature to the normal standard, one case in Charity Hospital falling in one day from 103° to 96°, and then remaining with a natural temperature for three months. The influence of the so-called arterial sedatives, like digitalis, veratrum, etc., on the temperature of the body is a subject not yet satisfactorily determined, but in the case of some members of this class that influence is very powerful, and in none more so than with colchicum in nauseating doses, for its refrigerant effect, so to speak, will often last for many weeks. Should I fail in the future



No. 2.

to obtain a desired reduction of pyrexia in typhoid fever with cold baths and quinine (which I have not done yet). I believe I would try the above-mentioned prescription first, in preference to the digitalis, giving it as often as every two hours, and watching carefully for the first sign of intermission of the pulse, for this, or a plain slackening in its rate, always precedes for a considerable time the nausea and prostration from these agents. It is to our German brethren that we owe the modern introduction and perfection of a system of antipyretic treatment which experience has vindicated as the greatest advance gained in therapeutics for many years. Statistics are uncertain only when used in an unscientific way, but few can doubt that the verdict of carefully sifted observations is now unanswerably given in favor of the new method, under which typhoid fever, from being the most dangerous of the acute infectious diseases of Germany, has on the same ground been robbed of more than half its former list of victims.

We come now to the management of the second great complication of typhoid fever, namely,

STARVATION.

The primary cause of this we have already shown to be from the suspension of the secretions of the digestive glands, by the effects of a too heated blood perverting or abolishing gland-function generally. You will therefore invariably find such suspension more or less complete, according to the greater or less amount of fever present. This fact is well illustrated, for example, in intermittent fever; for while a patient is in the hot stage of the attack, with a temperature of 104° F. or 105° F., his stomach is so irritable from its dry and congested state, that he not only cannot think of taking solid food, but will most likely at once reject it by vomiting, the same as he would reject some totally indigestible article, if it happened to be swallowed in health. On the other hand, during the intermissions, especially in cases of tertian and quartan ague, while the blood temperature is normal, the appetite is frequently strong and the digestion good. I remember that in my own case once, while suffering from a quartan, which came on about one o'clock P.M., I had great hopes about ten A.M. that I would be able to partake of a favorite dish expected at that day's dinner, but the fever came and I could scarcely bear to look at it when offered. Hence one of the most important purposes subserved by the employment of these measures which we have detailed as calculated to lower the height of the fever, is this one of enabling the digestive glands to resume their work; and accordingly you will find that in proportion as you succeed with those measures in lessening the pyrexia, even if it last for the brief period of an hour, your patient will cease to vomit the nourishment administered, and begin himself to ask for more. One good indication of the benefit of cold baths, for example, is frequently manifested in the natural state of the tongue and mouth secretions. Instead of the dry, cracked, bleeding, and brown tongue, and the sordes collected on the teeth and lips, which are so often described as features of this fever, I have frequently seen the tongue, even in severe cases, remain nearly natural during the whole course of the complaint; thus saving the patient the exquisite distress occasioned by attempts at deglutition with a parched and fissured tongue, and which distress is often the chief reason for their objecting to taking either food or medicine. The thickened articulation of these patients is also absent, if due to this cause rather than to degeneration of the lingual muscles themselves. But as we must have more or less fever, and therefore abolition of feeding, notwithstanding the most that we can do by the employment of apyretics, how then are we to assist the weak digestive laboratory so that our patient does not succumb to his prolonged fast of twenty-one or twenty-eight days? In the first place, we must begin by saving the alimentary canal a great deal of its ordinary work, by not giving it anything to reduce to a state of solution first, and hence administer food in a liquid form only. Experience has long taught us this fact, but there has been a want of discrimination, it seems to me, in meeting the next indication, namely, in the choice of the kinds of liquid food. In this country beef-tea flows into typhoid patients, and I may also add, out of them, almost continually. In Germany farinaceous gruels are much more common. But I cannot say that I am partial to the employment of either, except occasionally and in moderate quantities. With regard to beef-tea, I think it is more often the plague of a sick-room than any other benevolent mischief that can be named. It has little of meat about it, except its taste, and frequently not much of that; but, at any rate, at its best estate, it represents not so much concentrated nourishment or power, for it has been proved to have actually fewer nutritious elements in it than the same quantity of beer or porter; all that it possesses is that stimulating flavoring principle which makes a meat diet attractive. Fed upon it alone, however, the healthiest stomach will fain not have another drop of it after the first twenty-four hours. Why, therefore, should not our patient also become sickened by the watchful attention which insists on another dose every fifteen minutes for a whole week? But another, and a serious objection, is that all essences of meat are very prone to rapid fermentation when introduced into the hot digestive tube and mixed with matters there already beginning to ferment. This souring of beef-tea results in the evolution of great quantities of gas, and if the remaining liquid be vomited, its acid taste and properties will cause inflammation of the throat and mouth. I am sure, from repeated observations in cases of peritonitis, where we have great paralysis of digestive power, as well as in typhoid fever, that we can avoid the tympanitis characteristic of these affections, almost entirely in typhoid, and very often in peritonitis, by exchanging the administration of beef-tea for the food I am about to advocate; and hence I would advise your reserving meat juices only for those cases of typhoid where temporary stimulation is needed, such as in sudden cardiac paralysis, when, instead of beef-tea, you should administer the juice of meat, expressed by a lemon-squeezer out of pieces of steak, broiled just enough to start the flow of the juice from the fibres, and then have this well salted to prevent its too rapid fermentation.

Gruels are much more nourishing in the long run than meat broths, but still their elements represent only a part of the food of the body, and starvation is as surely the result of a restriction to them alone as in the case of the preceding article.

Far superior to either of these in its nutritive value and in its digestibility, is that liquid prepared originally for the alimentary canal before it is old enough to dissolve any solid food, namely, milk. First, as to nutritive value, there is nothing absent from milk which the system needs, while in all our sick-room preparations there are invariably some deficiencies, and generally, lackings of what is essential to continued life. The bones waste away remarkably in typhoid fever; what is there in beef-tea or gruel for them? The nervous tissue rapidly loses bulk also; where in these articles is there the fat which this more than any other tissue needs, except the utterly indigestible boiled fat of beef-tea, which turns into caustic butyric acid in the bowels? But milk has been aptly defined as fluid flesh and bones together; still better may we add, soluble nervous matter, for it is the nervous tissue which grows fastest and most at the age when milk alone is the diet. Now we are met by the objection that milk is a very indigestible article in fever, and among the laity we often find a positive dread of it as if it were poison to the sick. I could never understand how physicians will aim by various measures to make milk digestible to infants who have to live on it; while in fever, if it seems to disagree from a more than infantile weakness of the stomach, they are ready to abandon the only thing in the world which can be relied upon exclusively. If we dilute cow's milk, then add sugar and a little salt, and, lastly, cream, so as to make a child starving because it cannot digest cow's milk pure, digest it when it is thus rendered more like human milk, why should we not try the same with a starving fever patient, rather than exchange this complete food for our confessedly incomplete and clumsy preparations? I can only say in answer, that I have never yet met with a typhoid fever patient who could not take milk, and not only live upon it alone, but also, in marked and impressive contrast with those cases which are fed on slops, be found at the termination of the disease with muscles and tissues still nourished enough to cause surprise even to the patient's friends. In order to make milk digestible you should remember that the chief difficulty in the way is its casein, and therefore you should aim to reduce its proportion by dilution with one-half or one-third of lime-water. The alkali in lime-water is a great assistant to the digestion of casein, for reasons too long for us here to explain, but, in addition, like salt, lime is both an antiseptic and an excellent agent for allaying irritability of the stomach and bowels. I have had patients take as much as six quarts in the twenty-four hours of milk and lime-water for days together, nor do I object to the mere bulk or amount of liquid which this implies, because I do not think that water is other than a need and a benefit to a fever patient, for it is the safest of all diuretics, and in this form I have never found it increase diarrhœa, but rather the opposite.

But you have still remaining a means for completing digestion, which experience leads me to rate as one of our best adjuvants in the task before us. The introduction of artificial solvents, such as pepsin and pancreatin, mark undoubtedly a real advance in therapeutics, but in no conditions does the employment of pepsin seem so much indicated as in the indigestion of fever. In fact I have been surprised with some results from its use, which I was not looking for, namely, that it controls the typhoid diarrhœa better than any agent with which I am acquainted. Repeatedly have I known a severe flux not only diminished but very soon altogether stopped, after commencing with pepsin, and the discharges return to normal consistency. Along with the arrest of the diarrhœa I have found the tympanitis likewise disappear, so that it is rare for me now to have either of these annoyances present in a case of typhoid in private practice, from first to last. This may be due, however, in part, to combining other adjuvants with the pepsin, namely, bismuth and muriatic acid with chlorate of potash. My usual plan is to order a drachm and a half of saccharated pepsin with the same of the subcarbonate of bismuth, to be taken in divided doses through the twenty-four hours, after milk, and three or four times a day fifteen drops of dilute muriatic acid in solution, with ten grains of chlorate of potash. The acid is prescribed on the "restorative" principle, while the chlorate is supposed to act as a powerful and natural antiseptic. Now there is no necessity to aim for a complete stoppage of the diarrhœa in this fever, for a moderate amount of it may be beneficial in relieving the blood of waste matters. But when it amounts to more than two passages a day it can be nothing else than hurtful. Some physicians, whose minds are still influenced by the decayed theory of elimination, advise not to check the diarrhœa lest you leave accumulated typhoid poison behind; but a nasal catarrh on the same principle ought never to be meddled with, for who knows what it may be draining off? The action of pepsin and bismuth in checking this flux, as well as in dissipating the meteorismus, shows plainly enough that the flux is due to a severe intestinal catarrh, induced by the decomposition of the intestinal contents, as we have before explained; and it is fair to ask how a healthy man could fail to be enfeebled by a looseness of the bowels at all comparable with the common diarrhœa of badly managed typhoid? We must here allude also to another gain from the help obtained by artificial solvents and antiseptics. Inflammation and ulceration of Peyer's patches are to be expected at any rate in this disease; but are these lesions not seriously aggravated by a constant flow of acrid matters over the denuded membrane? I can only answer that tenderness over the cæcum on pressure diminishes or disappears so surely by the treatment here recommended, that I cannot but conclude that the ulcerative process itself is diminished or limited by the same means which checks the diarrhœa or flux from the affected intestinal tract. By proper nourishment, in short, and by proper means employed to make that nourishment assimilated rather than transformed into a drastic purgative, you will so change the physiognomy of the later stages of this complaint that you will not need afterwards to learn the falsity of that preposterous popular saying, that one should feed a cold and starve a fever.

The next complication for us to manage, namely,

SELF-POISONING,

begins even earlier in the disease than starvation. During the first week there is usually a rapid diminution in all the excretions, but notably on the part of the kidneys. When this is accompanied also by constipation and a dry skin the dangers of the patient are much increased, and these cases are much more apt to have a subsequent prolonged and severe course of fever. As already referred to, it is not unlikely that the retention of decomposition products in the blood, at this stage, favors the reproduction of the fever virus itself so as to explain the increased severity of the after-symptoms. We are, therefore, called upon to help the embarrassed excreting glands by a judicious employment of the eliminatives, and there is a great deal of room for choice here in the particular agents which we should select for this purpose.

The first, and most natural avenue for elimination of retained matters in the blood is by the bowels, and in the beginning of the disease we need not fear the effects of the proper kind of cathartics towards inducing a too free diarrhœa. There is only one cathartic, however, which I would advise you to employ in fevers, and that is calomel. Its action is not only mild in all fevers, even with those who at other times are apt to be considerably affected by it, but besides operating on the bowels, it seems to increase other glandular secretions at the same time, increasing the flow of urine and moistening the skin. You should give it in doses of from twenty to thirty grains at bedtime some time during the first week. This will usually start the discharges from the bowels pretty freely for two days, when they subside again; whereupon on the fourth day I would advise another similar dose, after which no more will be needed as a rule. Should a diarrhœa of any amount be excited by these doses, it can easily be checked by a tablespoonful of paregoric with fifteen drops of dilute nitric acid. We may speak with some confidence of the beneficial effects of calomel laxatives at this stage of the complaint, because comparative statistics on a large scale by Traube, Wunderlich, Liebermeister, and many others, both German and English authorities, concur in showing a diminished percentage of mortality in those so treated in distinction from those without calomel. All observers also agree that in a considerable proportion of cases the subsequent fever seems to run a shorter course, because a much greater number of cases of the fever terminating in the third week are to be found in those who have begun treatment with calomel. Some authorities, therefore, believe that calomel exerts a specific influence on typhoid, but I am not inclined to accept this view, because, for calomel to act as a specific it should remain in the system and not pass out by the bowels, and hence I regard its beneficial action to be due simply to its being the best cathartic that can be chosen. Iodine also is very highly spoken of by many authorities for modifying the severity of typhoid, but I have no experience myself in its use. It is usually given in the form of iodine, one part, iodide potass., two parts, and ten parts of water. Dose, three or four drops in a glass of water, every two hours. It very rarely causes any symptoms of iodism, does not aggravate the diarrhœa, and does seem to increase the secretion of the kidneys as well as those of the mouth. It should be given for the whole course of the fever unless it seems to occasion some direct symptoms of its own action.

The free use of water, as we intimated before, is to be recommended on the ground of its being an excellent eliminative, as well as urgently desired by every patient with a hot and dry skin.

This leads me to speak of a measure which I adopt in every case of severe fever of any type, but notably in the exanthemata—and that is, general inunction of the body several times a day either with simple olive-oil or with the lin. aq. calcis, composed of equal parts of olive-oil and lime-water. This is one of the oldest means of therapeutics, and the longer I employ it the more I am satisfied that it confers several peculiar and positive benefits; but notably in those complaints in which the skin itself becomes severely inflamed, as in small-pox and scarlatina. But its advantages in other fevers also are not slight. In the first place, it greatly allays the irritability of the surface nerves, which is such a source of restlessness and shifting of the position in fevers. It calms the nervous centres themselves when disturbed by a too constant transmission of external impressions by the excited peripheral nerves, and hence is no mean adjuvant towards procuring sleep. By relieving the tension of the skin also, it disposes to a gentle perspiration, and to that fact I attribute the still further advantage which is undoubtedly often gained by it, namely, of lowering the temperature of the body. You will frequently note a fall of from half a degree to a full degree in the thermometer under the tongue, half an hour after a general oiling, and which therefore cannot be ascribed to a mere cooling of the surface by exposure. Another effect which I have noticed is, that it relieves thirst, which I would ascribe to its restoring a function of the skin, which enables it to add water to the system when needed, as well as to abstract it when the circulation is too full, and the arrest of which function I regard to be the cause of the thirst always present when the skin is rendered dry either by fever or by the tension of general anasarca. In every case of typhoid, therefore, I direct that the patient be rubbed with oil by the palm of the hand three times a day, and oftener if there be great restlessness or the skin be very hot, and the attendants very soon perceive the use of persevering in the applications on noting the patient often coming out of his delirium during its performance. By this means also, the vitality of the skin is maintained in those parts where you are liable to have bed-sores, so that you will rarely be troubled with this unpleasant complication.

Original Communications.

THE RUNNING COLD-WATER BED.

A NEW METHOD OF REDUCING TEMPERATURE.

By A. D. FELTON, M.D.,

SYRACUSE, N. Y.

The direct application of cold for the reduction of temperature, by means of the bath, wet pack, etc., is authorized and recommended by such authority that we need not expatiate upon its advantages. Its disadvantages in private practice are apparent, viz., popular prejudice; for if your patient unfortunately dies, that hard master, public opinion, condemns the doctor for his foolhardiness in "driving the fever in;" the difficulty of finding the necessary appliances for dipping the patient into cold water, or obtaining competent persons to apply the wet pack, renders it necessary that the physician give his personal attention, and then, if the temperature having satisfactorily diminished the first few minutes of the pack, obstinately persists in rising until it is as high or higher than when he commenced, half an hour previous, the patient passing into a nervous chill, as ours did, he will surely sympathize with us in our disgust. However, later in the day the temperature had decidedly fallen, and we thought better of the cold application, but were unwilling to repeat the operation.

We felt that our patient, in the fourth week of typhoid fever, was rapidly being destroyed with a constantly increasing temperature of 103½° to 104°, accompanied by unpleasant brain symptoms. In our emergency we constructed from a rubber air-mattress a water-bed, with inlet and outlet at opposite ends, to which we coupled a rubber hose, one pipe being attached to the city water-works, controlled by a stop-cock, and the outlet conveying the water from the house. (In absence of the street hydrant, a barrel, at the proper elevation to act as a reservoir, will answer the same purpose.)

At eleven A.M., when the patient's temperature was 104⅛°, we laid him upon the improvised bed, with a blanket between him and the rubber, and a stream of water at 68° running through the bed. In half an hour our bed unfortunately burst, and the patient was of necessity removed; but his temperature continued to descend until ten P.M., when it was 103¼°, the lowest point reached in four days, except immediately following the wet pack. At nine the following morning, the temperature was still at 103⅓°, but soon rose to 103½°. In the meantime, having repaired our bed, he was again placed upon it, and remained for six hours, when, fearing to trust the nurse for the night, he was removed at nine P.M. Seven hours afterwards, his temperature was 102°, one and a half degrees less than when he was put upon the bed the previous day, and half a degree less than it had been at any time in seven days. In five hours the thermometer indicated 103¼°, and he was replaced upon the bed, and, with three exceptions, his temperature has not since been allowed to pass 103°, and then through negligence in not changing the water.

At the time of writing, my patient has lain upon the bed constantly for eighteen days, and until within eight days, when the fever began to subside and convalescence was declared, the water was renewed about every five hours.

By frequently changing the patient's position, thereby presenting a fresh surface to the cool bed, regulating the number of blankets over and under him, and controlling the current of water as his sensations and thermometer demanded, we were delighted to find that, while he enjoyed all the comforts and advantages of the water-bed without becoming chilled or exhausted, we could satisfactorily restrain his temperature within reasonable bounds, 102° to 102½°, or from one to two and a half degrees lower than previous to using the bed, and that in proportion as the temperature was allowed to approach or pass 103° his respiration and pulse were quickened, the latter becoming irregular and weak. the brows knit, the tongue and jaw trembled, muscular tremor and subsultus tendinum occurred, and delirium increased.

We cannot forbear mentioning the effect of the water-bed upon a would-be bed-sore. In the space of a week all signs of soreness had disappeared, and our patient is loud in his declarations of praise for the comfort of the ever soft bed, with cool cushions for every bone.

It is the opinion of myself and able counsel, Drs. Alfred Mercer and Henry D. Didama, who kindly sustained us in our departure from the customary treatment of fevers, that, in this individual case, we obviated the tendency to death by restraining the temperature with the direct application of cold.

While using this bed the head should be correspondingly cooled by the ice-bag or water-pillow, frequently changed. and the feet warmed if necessary, as with other cold applications. I believe a blanket will usually be required between the patient and bed, and there should be two or three thicknesses under his feet and legs; for a continued temperature of 60 or 70°, directly applied, cannot be constantly endured with comfort. but is agreeably modified by the blanket.

In demonstration of the potency of our bed for the abstraction of heat: when the temperature of the atmosphere was 62°, hydrant water 68°, the water in the bed, after remaining unchanged seven hours was 79°, an increase of seventeen degrees over that of the atmosphere, and eleven degrees above the hydrant water; therefore, our patient has imparted eleven degrees of heat to a barrel of water in seven hours, and his temperature is still 102¾°. What would it have been without the cold application?

At another time, when the temperature of the atmosphere and hydrant water were alike, the bed was warmed nine degrees in twelve hours, although there were three blankets between it and the patient.

Our water-bed should be supplied with a stopcock at each end, adapted for coupling hose, and be constructed to lie flat and steady, like the air-mattress, and not like the ordinary water-bed, which a light touch unpleasantly teeters. Other than the advantages it may possess in private practice, in fancy we picture hospital wards supplied with running-water beds, either hot or cold, as the case demands, comfortable, health-promoting, free from vermin, always made, delighting the patient and physician, and easily managed by an intelligent nurse.

SYRACUSE, N. Y., *Sept.* 22, 1875.

THE "MULTIPLE WEDGE PRINCIPLE,"

APPLIED TO THE "CONTINUOUS METHOD" OF DILATATION OF STRICTURE OF THE URETHRA.

By JOHN S. COLEMAN, M.D.,
AUGUSTA, GA.

On the 7th of September, 1875, Mr. W., of S. Ca., applied to me for treatment for a stricture of fifteen years' duration. He has frequently suffered from retention, and oftentimes has had to resort to pressure, *i.e.*, to lie prone across a log, to expel the contents of his bladder. Upon examination I find a stricture in the bulbous portion of the urethra, about half an inch in length, dense, and resisting in its nature. I introduced one of Gemrig's small elastic bougies, "made from the intestines of the silk-worm," and tied it in position.

8th.—Some slight febrile disturbance, which readily yielded to a saline purgative and the usual quantity of quinine, viz., 20 grains daily.

11th.—On removing the bougie, which had now been tied in for eight days, I was surprised to find that the stricture had not yielded in the slightest degree, and that I was unable to introduce the smallest gum-elastic catheter used by Sir Henry Thompson.

12th.—I to-day was again enabled to introduce a No. 2 of Gemrig's scale.

15th.—I now determined to apply the "Multiple Wedge Principle" to the "continuous method" of dilatation, and with that view passed No. 1 down by the side of No. 2, and tied it there.

18th.—I introduced to-day No. 4 of Gemrig's scale by the side of the two already in position.

22d.—Two of Gemrig's No. 1 were now passed along the grooves formed by the instruments in the canal.

As I now felt confident that I could use a good-sized catheter, I removed the five bougies, three of which were thickly encrusted with calcareous matter, and introduced a No. 5 bulbous pointed.

25th.—I removed the No. 5 catheter, and tied in a No. 10 conical English scale; this was allowed to remain until the 27th, when I readily introduced a No. 23 steel bougie of Gemrig's scale, the latter corresponding to No. 13 English scale.

I am daily more and more convinced of the superiority of this over all other methods of treating stricture of the urethra, and hope that my professional brethren will give it a trial.

My continued experience in the treatment of stricture corroborates the following language used by Sir Henry Thompson in his work on the urinary organs, p. 26, 11th and 12th lines from the top. The italics are mine: "*First and foremost, dilatation—dilatation always—dilatation without exception, whenever it will succeed.*"

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THE YELLOW SKIN OF ANGLO-INDIANS is said by Dr. Henderson to arise from the constant use of curry, which he says is colored with turmeric. He says that turmeric is such a powerful dye that it will in a short time stain even the bones.

Progress of Medical Science.

Affections of the Tongue which Resemble those of Tertiary Syphilis.—Dr. Charles Schwartz has furnished a résumé of a lecture by Prof. Alfred Fournier, in which he specifies the diseases of the tongue which may be confounded with the later syphilitic affections of that organ, and points out the features of a differential diagnosis. First we have the glossitis due to the constant friction of the tongue against the sharp or broken edge of a tooth. It is characterized by a hard nucleus, resulting from chronic inflammation and erosion, which ultimately is the seat of positive ulceration. It is to be distinguished from an ulcerating syphilide, with which it is very frequently confounded, by discovering the tooth which has caused the ulceration, and by the fact that filing or removing the tooth will cure the ulcer. Secondly, we have the glossitis due to the long continued and excessive use of tobacco, which is marked by the following features, viz. : a mammillated irregular surface, as it were, tuberculated on the edges, the middle covered with a whitish pellicle, which is furrowed and striated in every direction; some induration, especially in the anterior half or third, with erosions or actual ulcers at various points. These latter, which are of chief interest to us, are sometimes quite small and superficial, but at others are more excavated, reach the size of an almond, with an indurated base, often red or yellowish, and irritated. When possessing these latter characters it may be difficult to distinguish from a syphilitic ulceration, unless we pay attention to the history, which will be that of excessive and prolonged use of tobacco; to the chronicity of the affection; and also, to the co-existence of other lesions of the buccal mucous membrane, viz., the opalescent patches on the tongue or cheeks, near the angles of the mouth, which are pathognomonic of the use of tobacco. These look as if collodion had been applied, or nitrate of silver. It is by no means rare, however, for these lesions to co-exist with those of tertiary syphilis, and then a differential diagnosis is practically impossible, and moreover, the combination of diseases is found extremely rebellious to treatment, and the source of great suffering. Thirdly. Tubercular glossitis is associated with a phthisical history and symptoms identical with those of laryngeal phthisis. There are ulcerations, especially of the tongue, closely resembling the syphilitic. The differentiation is to be made from a careful physical examination of the patient, and from the fact of the rebellious nature of these lesions, while those which are syphilitic yield readily to specific treatment. Fourthly. The most important differentiation to make is that from cancroid of the tongue, especially when the stage of ulceration has been reached. Cancroid, he believes, is sometimes hereditary, and is more likely to be observed late in life, especially between fifty and sixty, while the syphilitic lesions are seen at an earlier age. The following points are important. Cancroid is a tumor with an ulcerated surface, it is true, but with a well-defined indurated base, much more marked than in the gummata, which are purely ulcers without tumor. Cancer, again, is unilateral, called *azygos* by Ricord. Its ulcer is more fungous, more ready to bleed, less gray, has less of a core, is less sharply cut, has more granulations. It has a more fetid, ichorous discharge, and is more painful. Again, an excellent diagnostic sign, when present, is the occurrence of ganglionic engorgement in the later stage of the cancroid, while it is absent in the gummata. Finally, the therapeutic proof may settle the question of syphilis or not, when other tests have left us still in doubt.—*Gaz. hebd.*, Oct. 23, 1874.

A New Mode of Treating Strictures of the Larynx.—In a recent lecture Dr. Michael Grossman, of Vienna, gave an account of a method practised by Schrötter for dilating strictures of the larynx and maintaining the dilatation. The cicatricial contraction or the swelling of the mucous and submucous tissues necessitating such treatment is apt to follow typhoid fever, variola, scarlatina, and especially syphilis. The author has been astonished to observe how great a degree of constriction will often be reached before suffocation appears to be imminent, and attributes it to the tolerance due to the slow progress of the trouble. He states that about one year and a half ago Schrötter began to treat these cases by first performing tracheotomy, and then passing elastic catheters through the larynx and drawing them out through the wound. The accompanying pain, the tendency of the wound to contract, and the impossibility of leaving the instrument long enough *in situ*, were serious objections to this plan. His next plan consisted in the use of a catheter, the extremity ending in a knob or button. The tracheotomy tube was first withdrawn, and then the catheter was introduced through the strictured larynx. It then appears that the tube was reintroduced (?) and the extremity of the catheter made to enter the fenestrum on the upper surface. Suitable forceps were then passed into the tube, the catheter grasped by the extremity, and thus firmly fixed. This instrument was left in position several hours, but it prevented the patient from taking anything but the most liquid nourishment, and it could not be borne during sleep. Schrötter then devised a series of small extremity cylinders, made first of hard rubber and then of tin, and about an inch and a half long. These have a brass stem running through them lengthwise, and end in an eye at one end and in a knob at the other. In using them a strong thread, fastened to the eye, is passed through a conductor shaped like a catheter, and drawn tight, so that the cylinder is brought up to the extremity of the instrument. After oiling, the cylinder is then, by the aid of the laryngoscope, pressed down and lodged in the larynx while the knob is seized by the forceps, as in the method last described. The conductor is now withdrawn, and the thread hangs from the mouth and can be fastened anywhere out of the way, as it gives no inconvenience. The little cylinders may be removed or changed once or twice in a day. They act partly by their weight. The first ones used were round. Schrötter has also devised a dilator, working with a screw, which can be introduced into the larynx either from above or below, according to the curve of the handle. Dr. Grossmann finds the galvano-caustic a very valuable adjunct in the treatment of these cases, and says that patients do not find its application so painful as that of caustic potash, or even nitrate of silver. As a further means of keeping up the treatment, even when the tracheal fistula has been allowed to heal, Schrötter employs hard rubber catheters of different sizes, with open extremities, through which the patient can easily breathe, and which he readily learns to introduce himself. In some cases early treatment by these methods has obviated the necessity for tracheotomy.—*Berliner klin. Woch.*, June 28, 1875.

On Disinfection of the Soil.—Dr. Jos. von Fodor, professor of hygiene at Buda-Pesth, has been making some experiments on the disinfection of the soil and the gases contained in it. Although not yet complete, he gives the results he has so far obtained. He argues that the diffusion of typhoid, cholera and other infectious diseases stands in direct causal relation to the pollution of the soil; and further, that the gases contained in such soil are the active agents by which our dwellings and our own systems are infected. The degree of contamination of the soil varies in different cities, streets, and houses, as indicated by the foci from which these infectious diseases spread. Thus, he argues that if we can remove or render harmless the impurities of the soil in such foci, we have gained an important hygienic advantage. As the ground beneath our houses cannot be removed, he conceived the idea of destroying the decomposing substances it contains by passing gaseous disinfectants through it. His first experiments were with carbolic acid. He filled a glass vessel, about two inches in diameter and one foot high, with moist, sandy soil, and forced through it from below air saturated at 72° F., with carbolic acid. Although this was continued for several days, he was utterly unable to saturate this thin stratum of earth with the carbolic acid, the air as it came out at the top being quite free from smell. He was equally unsuccessful with sulphurous acid. With chlorine, however, he was successful. A weak current of this gas easily passed through earth placed in a vessel similar to the last, though forty inches high. He also found that it acted equally well when tried on a larger scale, and with earth which had been rendered foul and offensive with a solution of sugar and stale urine, so that air which escaped was heavily charged with carbonic acid. Finally, he sank some iron pipes in the ground, one in the middle and others at various distances from it, and to various depths of from twenty to eighty inches. He then forced chlorine, by means of a bellows, into the middle pipe, and tested the air which came up through the others. The result was that he obtained evidence of the gas in tubes forty inches from the central one, and reaching to a depth of sixty inches, the latter being sunk a little over sixty inches.—*Allg. Med. Cent. Zeit.*, August 18, 1875.

Neuroses Dependent on Malarial Disease.—Dr. Valentine Kiparsky, of Moscow, reports several cases which fell under his observation while in a highly malarious district of the Caucasus, and which he regards as malignant neuroses of the heart, dependent on malaria. They all occurred within a short time, striking with lightning-like rapidity, and were marked by loss of consciousness and cessation of pulse and respiration—an apparent death—which became real from paralysis of the heart, unless instant aid were at hand. All four of the cases occurred in women who were menstruating. There was slight abdominal pain and quickening of the pulse, followed by instantaneous death in three of them, without other symptoms worthy of notice. In the fourth case, the immediate employment by restoratives—heat and brandy—brought back the pulse and consciousness in a few moments. Within a very few minutes more the patient was in a high fever, 106.2° F. After two large doses of quinine, recovery was prompt and complete. In the one case in which an autopsy was obtained, the heart was found flabby, in the condition of diastole, the right heart and venous system gorged with blood. Nothing else abnormal. Dr. Kiparsky's interpretation of these phenomena is that they were cases of febris algida, with collapse or syncope from weakness of the heart at the beginning of the cold stage, that organ not being equal to the task imposed upon it by the excessive contraction of the vessels of the skin.—*Allg. Med. Cent. Zeit.*, August 21, 1875.

The Inoculation of Varicella.—Prof. Steiner reports his experience in ten cases in which he has practised inoculation of the clear watery fluid taken from freshly developed varicella vesicles. Eight of the ten succeeded, that is, they were followed by the development of varicella, and never of variola. Of these, five had been vaccinated, and three not. In all, the duration of what he calls the stage of inoculation lasted eight days. Four times the eruption appeared without any prodromata. The highest temperature, as a rule, coincided with the eruption; the defervescence was rapid and complete. The course observed after the inoculation was ordinarily the following: On the third day nothing was to be seen at the point of insertion; on the fourth a gradually increasing febrile movement began, with distinct evening exacerbations and morning remissions. There was decided reddening of the mucous membrane of the mouth and throat before the appearance of the eruption. This followed on the eighth day, and the disease then ran its ordinary course.—*Rundschau*, Aug., 1875, from *Wien Med. Woch.*, 16, 1875.

Adams's Operation for Subcutaneous Division of the Neck of the Femur, Performed on both Sides for Straight Anchylosis.—Mr. Lund, of Manchester, reports a case in which both hips were anchylosed in the straight position, so that the patient was unable to sit down. Subcutaneous division of the neck was performed first on the left side, and twelve weeks afterwards on the right. The results were very satisfactory, excellent power of motion being acquired in both hips. The patient could support the weight of the body on either leg, and was in all respects greatly improved. Mr. Adams stated that his own results had never been so good; as a rule, the cases to be operated upon were, beginning with the best, rheumatic, pyæmic, traumatic, and scorbutic; though the last he would not operate upon.—*Trans. of the Brit. Med. Ass.*—*Brit. Med. Journal*, Aug. 28, 1875.

To Remove Stains produced by the Nitrate of Silver.—A few centigrammes of metallic iodine are placed in a saucer, to which a few drops of ammonia are added. Then, by means of a brush, or simply with the finger, the solution is applied to the stains. However old or extensive the stains may be, they disappear immediately. It is important to destroy the mixture afterwards, since it is nothing more nor less than the iodide of nitrogen, which when dry is an explosive body. This procedure is decidedly superior and more prompt in its action than the application of a solution of iodine, or of the cyanide of potassium, without possessing the disadvantages of the latter.—*L'Abeille Medicale.*—*Le Bordeaux Médicale*, August, 1875.

Treatment of Internal Occlusion of the Intestines by Electricity.—Dr. Fleuriot, in view of certain observations which he has made, more particularly in a case which he observed in the hospital at Brest, advises the employment of electricity to overcome internal strangulations of the intestine; he has used for this purpose Gaiffe's apparatus, and places one of the electrodes at the anus or within the rectum, and the other upon the abdomen.—*Thèse de Paris*, 1875.—*Gaz. Méd. de Paris*, Aug. 21, 1875.

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HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

The subject of homœopathy in the Michigan University still attracts considerable attention. As might have been expected, the discussion of the merits of the question has been animated from the start, and many of the disputants have been strongly imbued with a radicalism for one side or the other. At one time the faculty of the medical department of that institution was in such imminent danger of being sacrificed on the altar of an expediency, that any hope of their being able to explain their position appeared to the majority of the profession utterly futile. With this majority, as one of our contemporaries has said, "the very mention of the word (homœopathy) was almost like touching a spark to gunpowder."

As every one knows who has been acquainted with the history of the Michigan University, the homœopathic question has quite a history, dating back almost from the time the institution itself was founded. After being repeatedly defeated, the homœopaths have at last triumphed in getting a foothold in the medical department. It is safe to say, that if this could have been prevented, the faculty of medicine would have spared no pains, nor shrunk from any required work which conscientious opposition could force upon them. We are satisfied, from what we know of the history of the whole affair, that this assertion can be supported by facts.

To read, however, some of the criticisms which have appeared from the correspondents in some of the journals, it would seem that the said faculty are not only to blame for everything that has occurred, but are so wanting in ordinary orthodoxy as to bring upon their school the discipline of the American Medical Association, in the way of ceasing to recognize their pupils.

Accepting the fact of a homœopathic graft upon the college, the question at once arose whether or not it was best for the faculty to resign. To those who followed the impulse of prejudice rather than the voice of reason, the answer seemed obvious. There appeared to be no other way of getting rid of the graft than by cutting down the tree. After calmly viewing the situation, very many discovered that they had an affection for the University, and were determined not to sacrifice it. Then reason began to prevail, and the preparation was made for a calm hearing of the statement of the faculty. The principal object of this statement is to show that the best interests of the institution demand that the present faculty should remain where it is. Impartially judging all the circumstances of the case, it is our opinion, as before intimated, that they have the best side of the argument. As we understand it, there is no attempt to justify the action of the Regents; only a judicious acknowledgment of the fact that the governing power of the University had a right to do as it pleased. The faculty, then, do not endorse the measure, but are willing to make the most of the association that is forced upon them.

It might have been much better to have had an entirely separate department for the homœopaths, and this suggestion we made at the very commencement of the trouble; but for the time being this is out of the question. And after all, although it is not easy to admit it from the present standpoint of general professional opinion, it is perhaps best that it is so. The regular profession has to meet the issue one time or another, and all other things being equal, the sooner the better. We are heartily wearied of the cry of martyrdom on the part of the Hahnemannites, and the more liberal we are towards them the sooner will the question of their superiority of intelligence, their honesty of purpose, and their extraordinary skill in the treatment of disease be forever settled. Their present position in regard to the university gives them all the opportunities which they may reasonably ask for working out their own salvation. They have, if not in fact, at least in name, the association with a well established and reputable school of regular medicine, with all the privileges of instruction which they may desire, and the extra opportunity of special teaching in the peculiar doctrines of their own faith. If the special beliefs of homœopathy can be best combated by truth and light, the "Department of Medicine and Surgery" have every advantage of not only maintaining their ground, but of vanquishing the intruders. The more we concede to them in the beginning, the more triumphant will be our victory in the end. In this view it is hardly fair to assume that the university is giving comfort to the enemy.

We think that the faculty, far from being condemned for the course taken, should be upheld by every liberal-minded professional man, and should be encouraged by every impartial searcher after truth. They are not placed in any position which will compromise their honor, and although disagreeable associations may be forced upon them, it is their duty to make the most of the situation, and calmly await results. They can assume no responsibility in granting homœopathic diplomas, as their names do not appear thereon, nor do they pretend to recommend any candidate for such distinctions. It is true each one of the regular professors examines these candidates in his respective branch, and certifies thereto; but this is all. Although it may be assumed, and with considerable truth, that the homœopathic college may prosper by borrowed light, yet the homœopathic graduate from that school, practically speaking, receives no credit for having passed the examination of any but the two homœopathic professors.

SPECIAL MEDICAL ADVERTISING.

We are quite amused to hear from some of our country contemporaries how much the progress of medicine in New York is due to a few so-called shining lights, and how dependent it is upon them for its reputation as a medical centre. The celebrity of these great men is mainly due to the New York correspondents of the journals in question, who, from all appearances, have very little to write about. In these letters we notice one or two gentlemen in particular who figure quite prominently as acknowledged leaders of medical thought here. We can hardly account for this strange unanimity of opinion on the part of these correspondents in any other way than some unusual facilities which have been disinterestedly forced upon them for forming such opinions. At best it is a strange coincidence, and if it were not that medical advertising is getting respectable, we should question their intentions.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 7, 1875.

Dr. S. S. Purple, President, in the Chair.

After the reading of the minutes of the last stated meeting, the President announced the death of Dr. Ernst Krackowizer and Dr. Cyrus Weeks, and upon motion appointed Drs. Gurdon Buck and Jacobi as a committee on resolutions upon the death of Dr. Krackowizer, and Drs. Finnell and Anderson as a like committee upon the death of Dr. Weeks.

Dr. Jacobi was also appointed as memorialist upon Dr. K., and Dr. Finnell the same upon Dr. Weeks.

Dr. Lyman, of Chenango Co., was introduced to the Academy. The committee upon admissions reported the following names: Drs. W. B. White, J. D. Bryant, W. G. Wylie and Alex. Hadden.

Mr. John Eric Erichsen, of London, was elected corresponding fellow of the Academy.

Preparatory to discussion, Dr. Isaac E. Taylor gave a synopsis of the paper which he had read at the previous meeting, upon the best method of managing

CASES OF LABOR WITH CONTRACTED PELVIS.

Discussion was not extended, but remarks were made by Drs. Peaslee and Hanks. Dr. Peaslee regarded the position taken by Dr. Taylor as incontrovertible, especially when we consider the results of treatment; and Dr. Hanks related the history of a case bearing upon the subject in question.

Dr. Elsberg next proceeded to the reading of his paper upon

PNEUMATOMETRY,

as a new means of diagnosis in diseases of the respiratory organs. This is simply a method of measuring inspiratory and expiratory force, and its value in disease is that by it both inspiration and expiration can be measured exactly, which enables the observer to see precisely what the variations from the healthy standard are. The instrument consists of a simple glass tube bent upon itself and fastened in front of a graduated metallic scale. This tube is about half filled with mercury, and secured to the scale by a screw when the level of the mercury corresponds to zero. To one limb of the tube, the other being sealed, is attached a piece of rubber tubing, which ends in either nostril pieces or a mouth-piece or an oro-nasal mask. Blowing into the rubber tube depresses the mercury in one limb of the glass tube, and causes it to rise in the opposite limb, and the reverse takes place when an inspiration is made. The difference between the two is noted, and gives the difference between inspiration and expiration, and the variation of both or either from the healthy standard.

It was claimed that by means of this instrument pulmonary emphysema can be detected in its incipient stages even before any actual subjective disturbances exist. Observations were also given which had been made with regard to asthma, bronchitis, pulmonary phthisis, diseases of the circulatory organs, abdominal organs, etc., etc. The pneumatometer was presented not as an invariable guide in diagnosis, but simply as an additional aid in the investigation of certain doubtful cases.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, October 8, 1875.

Dr. E. R. Peaslee, President, in the Chair.

THE DANGER OF TRANSMITTING SYPHILIS FROM NURSLING TO NURSE, AND VICE VERSÂ, IN PUBLIC INSTITUTIONS.

Dr. R. W. Taylor read an interesting paper upon the above subject, in which he clearly elucidated the fact that such a calamity has occurred, and therefore may be repeated unless more scrutinizing precautions are taken in the way of prevention. The study of this subject is interesting and peculiar for various reasons, but particularly because the origin of the malady is wholly unassociated with the sexual act. It is important for the reason that the buccal lesions in syphilis, notably the mucous patches, are prolific sources from which syphilis may be transmitted, and are of very frequent occurrence; reaching as high as 70 per cent. in hereditary cases. The methods of contagion are: (1) an infant having mucous patches is nursed by a healthy woman; the morbid secretions are deposited upon the nipples, the system becomes infected with syphilis, and now having the initial lesion developed upon this site the secondary manifestations follow; (2) a woman who has syphilitic chancres upon the breast and nipples transmits the poison to a child which has hitherto been unaffected by the disease. The greatest dangers of such transmissions exists in hospitals and asylums, where large numbers of children are congregated and nurses employed to nurse them, and the importance of thorough inquiry into the condition of each child and nurse cannot be over-estimated.

As a text for the study and illustration of the question, Dr. Taylor gave a very minute and detailed history of a case which had fallen under his observation in consultation with Dr. Loring, in which a healthy woman in one of our lying-in asylums was called upon to nurse two children that subsequently died from the effects of syphilis. When he saw her a well developed chancre was present upon the left nipple, which was the one she had given to these children, reserving the right breast *exclusively* for her own child, that was without blemish.

The woman subsequently suffered from secondary lesions, such as roseola, hyperæmia of the pharynx, typical adenopathy in the axilla, etc., etc. The period from the time of nursing the first child to the appearance of the initial lesion upon the woman's nipple was about fifty days, and from forty-two to forty-seven days after nursing the second child. Now the period of incubation for syphilis has been established at from seven to ten days as the shortest and seventy days as the longest, so that although the time which elapsed after the exposure of this woman's breast to the mouth of a syphilitic child was quite long before the initial lesion appeared, yet it was far within the limits of impossibility.

Inasmuch as about seventy per cent. of the cases of hereditary syphilis present buccal lesions, this mode of transmission from nursling to nurse cannot be too fully appreciated and provided against. There are certain difficulties in the way of prevention which a moment's reflection will make apparent. First, it is a matter of great difficulty to determine in very many cases whether the sore mouth which may be present is syphilitic or not. If there was nothing but the ordinary mucous patch to be recognized no special difficulty would be realized, but unfortunately the typical appearances are very often lost, and such sore mouths present only, or almost only, the look of an ordinary stomatitis. On the other hand, nurses may have syphilitic chancres upon their breasts which can be readily recognized, but they *may* receive children to nurse when in the period of incubation of a mammary chancre, or in that stage of its development in which there is simply an abrasion, a pimple, a fissure, or an excoriation. Indeed, these are the appearances of the initial lesion, which are usually overlooked *entirely* by the nurse, being attributed to chafing by the clothes or other agency, and are *liable* to be overlooked by the physician unless the utmost care is exercised. It is these apparently trivial appearances of the primary lesion that may be the precursors of syphilis, and should be most cautiously guarded against.

This leads directly to the question of selecting nurses, and that brings up the history of all the children nursed within the past two months, as well as the history of all those nursed temporarily and their condition; and in addition, the nipples of the nurse should be scrutinized in the closest possible manner. In doubtful cases in the *nursling*, the proper course is to, temporarily at least, nourish the child by bottle-feeding, and in this even the greatest care should be exercised lest the virus be transmitted from one child to another by the utensils employed. For suburban asylums goat nursing was suggested.

After the reading of the paper by Dr. Taylor Dr. F. P. Foster exhibited a new VAGINAL DOUCHE, which certainly had the appearance of a very valuable and convenient apparatus; for with it vaginal injections can be given without regard to quantity, and without soiling the bed or changing the position of the patient. The instrument consists of a soft rubber cylinder, at the distal extremity of which are a few small openings. To this flexible cylinder is attached a piece of rubber tubing, which permits the entrance of a stream having a greater calibre than the combined calibre of the small openings at the distal extremity, and to this piece of rubber tubing a Davidson's syringe can be attached, or a suspended vessel containing the injecting fluid. When the cylinder has been introduced and the injecting fluid thrown in it becomes distended, fills the vagina, and thus prevents any reflux. The reflux, however, is provided for by a metallic tube which is *within* the flexible cylinder, and has attached to its open mouth the distal end of the cylinder, while to the other end a piece of rubber tubing is attached which conveys it to any convenient vessel.

With this instrument the fluid is prevented from running out over the perineum, which enables the operator to use much warmer water, for instance, than could otherwise be borne, and it also permits the use of injections without wetting the vagina, which to many patients is very desirable. There is a certain ratio between the size of the stream which enters the flexible cylinder and the small openings at the distal extremity, which is necessary to the proper working of the douche. To obtain this ratio has cost much time and numerous experiments, but the doctor will cheerfully furnish it to any one who wishes to secure an instrument if they will call upon him. The thanks of the association were extended to Drs. Taylor and Foster for their interesting communications.

Reviews and Notices of Books.

1. A Practical Treatise on Diseases of the Eye. By Robert Brudenell Carter, F.R.C.S.

The author states in the preface that "his aim has been to place before the profession, in a concise and readable form, a general view of the present state of knowledge with regard to the nature and treatment of the more important diseases of the eye"; and it is with great pleasure that we can endorse the work as a most valuable contribution to practical ophthalmology. Mr. Carter never deviates from the end he has in view, and presents the subject in a clear and concise manner, easy of comprehension, and hence the more valuable. The book cannot be called a complete treatise on the subject, for there is no mention made of the important class of diseases relating to the orbit, and in some points of pathology the author has confined himself within too narrow limits. We would especially commend, however, as worthy of high praise, the manner in which the therapeutics of diseases of the eye is elaborated, for here the author is particularly clear and practical, where other writers are unfortunately too often deficient.

The work is divided into fifteen chapters, which the reviewer has thought best to take up in order.

Chapter I. treats of the anatomy and physiology of the eye, and is full enough for the student without being too finely elaborated, as is the case in Continental text-books; but the author makes a very curious omission, and one or two misstatements. In describing the anterior or external elastic lamina, he calls it Reichert's membrane, but makes no mention of Bowman, whose name has been connected with it from the first; an omission very remarkable in an Englishman. In another place he states that at birth the anterior surface of the iris is invariably blue, and that all infants, even among the dark races, are born with blue eyes, which is certainly not the case. Again, in describing the optic nerves, Mr. Carter regards the question of the complete decussation of nerve-fibres in the chiasm as settled, while, in fact, that opinion is by no means universally accepted.

Chapter II. discusses the method of examining the eye, and is a most excellent one, especially on the subject of refraction and the state of the visual field. The question of the tension, physiological and pathological, of the eyeball is discussed in a few words, and the scale made use of generally in text-books is correctly shown to be useless for purposes of comparison. In speaking of the examination of the media of the eye, the author says that cataract is *common* among diabetic patients, which we think is too wholesale a statement, for we do not think it is usually met with. Further on he says that a certain kind of degeneration of the retina is almost always associated with the forms of renal disease which produce albuminuria, which, however apparently true in former years, is less so now; for this peculiar retinal degeneration has been seen in patients who were entirely free from renal disease, and so remained for years. This chapter, however, is particularly noticeable for the care with which Mr. Carter distinguishes between *seeing* and *observing*, and for the emphasis with which he insists upon the grand necessity of cultivating powers of observation.

Chapter III. treats of the ophthalmoscope and its application. In it the author claims the honor of constructing the first ophthalmoscope for an Englishman, Mr. Babbage, a fact which is but little known, and not mentioned in any text-book, that we are aware of. The chapter gives a very concise and intelligible account of the principles employed in the use of the ophthalmoscope, and is therefore valuable to the student, but one or two statements need modification or correction. When Mr. Carter asserts that he is not acquainted with a single authenticated instance in which it has been shown that the reflection from the mirror has done harm, we are sure that some of our American ophthalmologists will not agree with him, for some of us have seen grievous results in too frequent or prolonged use of the instrument, especially in the acceleration of a threatening glaucoma. The author, moreover, does not seem to be well acquainted with the ophthalmoscope of Dr. Loring, of this city, for he mentions a modification of it by Dr. Noyes, which we, his fellow-townsmen, have yet to hear of; and he makes no mention of Dr. Loring's own improvements in his instrument, in placing all the lenses in one disk in two circles, and in covering them from external injury by a narrow metallic band.

In *Chapter IV.* Mr. Carter gives us the principles of ophthalmic therapeutics, which for great practical value is the best in the book, and can be read and re-read with profit. The question of correct diagnosis is intimately blended with the therapeutics, and in the author's manner of going to the bottom of everything, we see much to remind us of the thorough work of the lamented Dr. Anstie. He discusses quite fully the derangements of nervous function, the influence exerted by the fifth nerve on the nutrition of the eyeball, and especially on what he calls the remote origin of eye-disease. This is a subject of very recent interest, and hence this chapter is of double value. Mr. Carter is a firm believer in the constitutional treatment of inflammatory diseases of the eye, and gives us some valuable practical hints in the proper employment of drugs.

Chapter V. treats of the principles of ophthalmic surgery, in which there are no new hints, but we give the author's own words in regard to the multiplicity of instruments in the surgeon's armamentarium, as follows: "The instruments now living, so to speak, and familiar to us, may be divided into two great classes: the essential, which are the representatives of inventive ingenuity, and the superfluous, which are the representatives of inventive awkwardness. The former class have been contrived by good mechanicians, the latter by bad surgeons. The safest man is he who never invented an instrument in his life, but whose daily practice affords evidence that he can use those which have been invented for him by others." Mr. Carter speaks very highly of the use of ether as an anæsthetic, and gives due credit to Dr. B. Joy Jeffries, of Boston, for having been the means of bringing it into more general use in England.

Chapter VI. discusses diseases of the eyelids and lachrymal apparatus, which is too short, and, we think, faulty, at least as far as the latter subject is concerned. In speaking of obstruction of the nasal duct, the author says that experience has taught him, after watching attentively the results of various kinds of practice, that the best treatment, in a great number of instances, is that which is only palliative, and that the best surgery, generally speaking, is to leave the obstruction alone. This we regard as very bad advice and by no means to be followed. There is scarcely a class of diseases in which temporizing does so much harm as in these affections of the nasal duct, and though we perhaps succeed in curing but a small percentage of them by surgical interference, yet we certainly benefit a large number.

In *Chapter VII.* we have an excellent, concise discussion of the more common affections of the conjunctiva, especially of the contagiousness of trachoma and granular ophthalmia in large assemblies of children and adults, and the systematic disinfection of buildings and their contents where such diseases prevail. Mr. Carter very justly protests against the objectionable term "diphtheritic," as applied to cases of conjunctivitis, where the discharge is fibrinous instead of purulent. The disease is certainly not a true diphtheritic deposit on the conjunctiva, a disease wholly unknown in England, and almost as much so in this country, but which is quite prevalent in some parts of Germany among poor children.

In speaking of pterygium, the author regards it as scarcely at all amenable to treatment, for, if removed, the same kind of action is often renewed in the cicatrix, and that a pterygium does no harm unless it extends so far over the cornea as to obstruct vision, and then the best course is to enlarge the pupil by iridectomy. This we regard as bad surgery. A pterygium should always be excised before it has encroached upon the pupil, and it very rarely returns. Iridectomy for such a purpose is not to be recommended.

Chapter VIII. is a good practical discussion of the more important diseases of the cornea. In speaking of vascular keratitis, Mr. Carter points to the probable government of the morbid process by nerve-distribution, and if this view is correct, the practitioner should in every case look beyond the eyes themselves for the inception of the malady, and this we regard as an important point in diagnosis. In all such fine points of diagnosis and etiology, a mere specialist may break down, and we should all of us acquire the skill of the accomplished medical practitioner, with broad views and freedom from prejudice. Mr. Carter recommends the local use of quinine in deep ulceration of the cornea, with marked suppurative action, a process which has not generally found favor in this country.

Chapter IX. is devoted to a short discussion of the iris, ciliary muscle and choroid, which is sound and practical, but scarcely full enough for the purpose. Here again the author's principles of therapeutics are most admirable, particularly with reference to sympathetic ophthalmia. The neurotic origin, proximate or remote, of some of the forms of iritis is again brought forward and its importance in diagnosis and treatment carefully urged.

Chapter X. treats of cataract. The various forms of lenticular opacity are mentioned in a succinct and yet sufficiently detailed manner for practical purposes. The author advocates discission, combined with suction, for all cases of cataract in patients under thirty, except in infancy, and in those cataracts which have undergone liquefaction. This is a procedure which has never gained a foothold in this country, and which is now entirely abandoned, on account of the danger of subsequent inflammation. In speaking of senile cataract, Mr. Carter advocates operating on the most advanced cataract before the other eye is wholly blind, because this has the great advantage of giving the operated eye a longer period of rest before it is called into use, than it would otherwise obtain, which is sound reasoning. In describing the different operations, the author makes no mention of Le Brun's method, though he does of Liebreich's. A great omission in this chapter is the failure to make any mention of Agnew's operation for the removal of capsular opacities or membranes, which is now quite an old story.

In *Chapter XI.* we have a most excellent though short discussion of a very important question, glaucoma, and we would particularly call attention to the author's plain and concise statement of the intimate connection between the pathology of the trifacial nerve and glaucoma.

Chapter XII. is not complete. In it are discussed the diseases of the fundus of the eye, but some of them are passed over in too cursory a manner. The anatomy of the optic nerve, in its connection with the intervaginal and arachnoid spaces, is, however, entered into with sufficient minuteness. Mr. Carter's idea of the diagnostic value of swelling of the optic disk is the correct one, and we most unreservedly agree with him when he says that he has never been able positively to connect any one of the types of nerve inflammation and swelling with any definite intracranial condition. Again, in treating of progressive atrophy of the optic nerve, the author asserts that "he does not know of any symptom, or other discoverable element, in a case of progressive atrophy, which will serve as a basis even for an *à priori* conjecture whether the hypodermic injection of strychnia will be useful or not," and this we must corroborate by our individual experience. But we think Mr. Carter takes a grave responsibility upon his shoulders when he commits the use of the syringe to some member of the patient's family, when medical attendance is for any reason inaccessible, for this is a dangerous playing with edged tools. Our rule is never to advise the hypodermic use of strychnia when it cannot be done by yourself or some medical man.

Mr. Carter's experience with galvanism by the continuous current has been unsuccessful in the treatment of these cases of atrophy of the optic nerve, and his opinion of its uselessness coincides with our own.

As regards the causation of such cases the author differs from most authorities in being inclined to deny any adverse influence to the abuse of alcohol and tobacco, except in so far that every malady which assails a drunkard is probably in some remote degree dependent upon his vice. In this we are almost sure he is mistaken, if one may judge from personal experience and the published reports of others.

In speaking of that form of retinitis usually attributed to chronic renal disease as a cause, Mr. Carter seems to ignore that frequent transient dimness of vision, without any ophthalmoscopic evidence of retinal disease, and which, for want of a better name, we will call uræmic amblyopia. This is often a precursor of the fatty degeneration seen in the retina, and is no doubt due to the poisonous effect of the diseased blood upon the intracranial centres.

In discussing intraocular tumors the author is very much mistaken in calling sarcomata of the choroid extremely rare, for they are not uncommon in the experience of most writers. The subject of gliomata of the retina is well discussed, and the duty of the surgeon in urgently advising immediate enucleation as the only remedy is strictly enforced.

Chapter XIII. is devoted to injuries of the eye, and the paragraph upon sympathetic ophthalmia and its treatment is very good. Mr. Carter advises, after enucleation, that the orbit should be firmly plugged with sponge, bandaged, and left undisturbed for three or four hours. We are not fond of this method, for we have seen unpleasant results from the sponges acting as foreign bodies, and causing considerable irritation. The bleeding may be easily controlled by ice, or even by exposure to the air, before the bandage is applied.

In *Chapter XIV.* we have a very practical and at the same time scientific account of the great subject of squint and paralysis of the ocular muscles, which, however, is too short to do full justice to the subject. In going over it we see everything to commend, and only one thing to object to, but this seems to us important. In speaking of the subject of advancement for the cure of divergent squint, Mr. Carter describes an operation which is the same as Dr. Agnew's, of our city, and though the author admits aid from *hints* of Dr. Agnew, yet they are more than *hints*, for the two operations are exactly the same. A description of Dr. Agnew's operation may be found in the last American edition of Stellwag's Treatise on Diseases of the Eye.

The final chapter is devoted to a discussion of the uses and selection of spectacles, and is admirably compact, plain, and useful, especially the paragraphs on the treatment of presbyopia and myopia. In conclusion, our thanks are due the author for many useful hints in the great subject of ophthalmic surgery and therapeutics, a field where of late years one gleans but a few grains of sound wheat from a mass of chaff. The book has some blemishes, but many good points.

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LET EACH MAN LEARN TO KNOW HIMSELF.—Self-examination and meditation are always beneficial. The former can now be carried out more completely than ever before by the aid of a new apparatus devised by Dr. Grunfeld, of Vienna, which enables each man to examine his own urethra completely, and without inconvenience or expense worth mentioning. The inmost parts can also be shown to a friend if desired. For particulars see the Allgem. *Wiener Med. Zeitung*, No. 36, 1875.

Correspondence.

ELECTROLYTIC TREATMENT OF TUMORS.

To the Editor of The Medical Record.

Sir:—In an article in The Medical Record of Oct. 2d, a case of recurrent fibroid tumor of the neck is reported, followed by some remarks on the electrolytic treatment of tumors. In connection with the case the author offers two questions for consideration, viz.: "What is the relative value of electrolysis in the treatment of tumors?" and, "May not its use, from the irritation it produces, convert a benign into a malignant growth?" After a few hasty considerations he concludes: 1st. "That electrolysis has only removed a few small, unimportant tumors, and a few small nævi." 2d. "That as a method of treatment which does away with the knife (and one which can be used at times and in places where the knife cannot) it is certainly of value, but even under the *most favorable circumstances* it is an *uncertain* and sometimes even a dangerous remedy." 3d. "That the electric treatment of the tumor in question converted it into a malignant one." 4th. "That electrolysis should *only* be used in the treatment of tumors when they are very small, or are inaccessible to any other method." While electrolytic action has been understood and utilized in surgery more or less for many years, the results that might be expected in a given case were far from definite; now, however, the possibilities and limitations of electro-surgery are measurably clear. We know, for example, that electrolysis will *not* cure cancer, but that it will almost invariably relieve the excessive pain that is so often associated with it. Extirpation of a malignant growth, followed by complete destruction of the underlying tissue by the electrolytic process, is the only feasible method, and the measure of its utility can only be determined by an extended series of observations. The probabilities of occasional success depend upon the truth of the local origin theory of cancer, as so ably set forth by Van der Kolk, Morgan, and others. We know that we cannot *depend* upon it for the dissipation of large, firm tumors, whether benign or malignant, and yet it seems to me that the author of the paper in question concludes hastily and erroneously. It is certainly important that a valuable method of operation, from which so much was expected, and which has in some respects so decidedly disappointed expectation, should be correctly appreciated. The results of cases, he remarks, "show that electrolysis has only removed a few small, unimportant tumors, and a few small nævi."

Few tumors are unimportant to the person whom they afflict, and erectile tumors are often especially annoying. Electrolysis is not only uniformly successful in dissipating them, but, if used with due care, will leave little if any scar to mark their seats. Cystic tumors, as well, yield readily and quickly to electrolysis, notwithstanding the very bold assertion (and which should not have been ventured, excepting it were founded on much experience), "that even under the most favorable circumstances it is an *uncertain* and sometimes a dangerous remedy."

On the contrary, it is, as a rule, a very *certain* remedy—certain in the great majority of tumors to fail, but in a few varieties of growths—two of which I have mentioned—pretty certain to succeed.

The danger from sloughing is also, I am sure, overestimated. I have seen very little of it, although I admit that in erectile and some other tumors it may occur, if the current is injudiciously used. In scirrhus of the female breast very strong currents are necessary to cause suppuration, and occasionally the most intense currents fail to produce any effect whatever.

In the sarcomatous variety of tumors, however, electrolysis is quickly and almost invariably followed by increase of size, ulceration, and the formation of numerous fungoid growths.

Finally, the single case of fibro-recurrent tumor that constitutes the text of the article under consideration seemed, according to the author, to teach, 1st. "That the electric treatment employed converted it into a malignant growth." 2d. "That electrolysis should only be used in the treatment of tumors where they are very small, or are inaccessible to any other method."

When it is remembered that electrolysis was attempted with the faradic current, an entirely unnecessary and unjustifiable procedure, we can well understand that the irritation was capable of exciting a malignant action. If, however, the idea is conveyed that electrolysis proper (electrolysis with the galvanic current) has any special tendency to convert benign into malignant growths, all experience and experiment disclaim it. I doubt whether sufficient evidence could be educed to offer a foothold even for such an opinion. The electrolytic action of our ordinary faradic current is for all practical purposes absolutely *nil*, and where tumors have disappeared under its action it has been because of its irritant and not of its chemical effects. It is therefore to be excluded in the consideration of electrolysis.

While it is admitted that the results of electrolytic action are capricious in the treatment of all but a few varieties of growths, it is yet occasionally effective in tumors of considerable size, and notably so in bronchocele and fatty enlargements. Goitres are almost always reduced more or less in size, in not a few instances have disappeared altogether, and in three cases that have fallen under my observation the growths were dissipated by external applications alone. Fatty tumors, as is well known, have disappeared under various forms of irritants, and electro-puncture with the faradic current might possibly avail in some favorable cases. I have never tried it, but among a number of cases treated unsuccessfully by galvano-puncture, I have records of two cases in which it was entirely effective. In one case the growth was the size of a hen's egg, and had existed many years. I recommended removal by the knife, and referred the case to Dr. A. B. Crosby, who saw it with me. No persuasion, however, could induce the patient to submit to any cutting, and therefore galvano-puncture was attempted. Three séances, during none of which was the slightest pain experienced, resulted in a complete and permanent disappearance of the growth.

I cannot therefore subscribe to the validity of the final conclusion, that electrolysis should only be used in the treatment of tumors when they are very small, or are inaccessible to any other method.

Yours truly,
A. D. Rockwell, M.D.

To the Editor of The Medical Record.

Sir:—I have been a constant reader of The Record for several years past, and have acquired from its pages much information of almost incalculable value. I have been more particularly interested in the articles which have appeared from time to time concerning the therapeutical and surgical use of electricity. Many of those articles show the writers to have been not only scientific men generally, but also that they were ably posted in the science of electricity in particular; consequently their terms were accurate, their meaning plain, and their contributions highly interesting and instructive.

In your issue of October 2d, I see an interesting report by Dr. Comegys, containing "Some Remarks on the Electrolytic Treatment of Tumors," in which he draws the two following conclusions:

1. This electric treatment converted a recurrent fibroid into a malignant tumor.

2. Electrolysis should only be used in the treatment of tumors when they are very small, or are inaccessible to any other method.

Both of these conclusions may be true and very properly drawn from his premises, and yet not be a fair statement of the value of electrolysis, or the limits of its application.

I have for a long time studied and experimented in its use in the treatment of tumors of nearly every variety. My success, although discouraging at first, has steadily increased as I gained a knowledge of the laws and principles which govern its action. To obtain the most successful results, according to my experience, the following conditions have to be complied with:

1st. None but the uninterrupted galvanic current should be used.

2d. Only the negative should be used in the tumor, the positive to be applied to some other portion of the body, by means of a sponge moistened in warm salt-water.

3d. The needle used should be composed of either platinum or gold.

4th. A current should be used of sufficient intensity to produce a visible decomposition of the tumor, as evidenced by the bubbling out of gas (hydrogen) around the inserted needle.

Tumors that particularly indicate its use, and which it invariably succeeds in discussing, are those of a sanguineous nature, the most numerous of which class are hemorrhoids. With few exceptions, all tumors which are not of a hard, fibrous or cartilaginous nature will readily yield to its disorganizing powers.

Malignant tumors should be completely and thoroughly disorganized. Other tumors generally take on a rapid process of absorption after being partially destroyed by the electrolytic action, and soon disappear.

The great advantages this operation possesses over all others are: the absence of hemorrhage; the *minimum degree of inflammation* by which it is followed; the absence of sloughing, and the *rapidity and kindness with which the wound heals.* When properly performed, it does not produce, neither is it followed by the putrid materials capable of causing septicæmia.

In no case have I ever seen it increase the rapidity of growth, or cause a non-malignant tumor to assume a malignant type. Out of nine cases of malignant tumor, three were cured (and up to this time without any return), four were relieved from pain, and the growth for a long time arrested. In the other two cases, there was no perceptible change, either favorable or otherwise.

I do not claim that electrolysis is advisable in the treatment of all tumors, or even the majority of them; but I do claim, that in those cases for which it is adapted, its merits are incomparably superior to those of any other method.

Respectfully,

F. S. Adams, M.D.

Springfield, O.

LIGATION OF FUNIS.

To the Editor of The Medical Record.

Dear Sir:—Tying the placental end of the dissevered funis previous to the expulsion of the placenta is not done to avert *danger* from hemorrhage of that sanguineous mass, but is an act depending upon the estimate a practitioner puts upon the value of neatness in his obstetrical operations. A depleted placenta, previous to its extrusion, is equivalent to a needlessly drenched bed. With proper precautions a retardation of placental expulsion is a circumstance of rare occurrence, as depending upon the retention of its normal allowance of blood.

Dr. A. Rose's strictures of October 9th upon my article on a method of ligating the funis, in The Medical Record of August 28th, 1875, is deprived of its significance as a sound criticism, based upon the presumption of superior anatomical knowledge, when we consider the language used in my article: "Another ring is commonly slipped over the placental end of the funis." The word *commonly* means neither invariably nor of necessity, but means in *the usual order of practice.* The usual practice of constricting the placental end of a cut umbilical cord has for its object, as I supposed, the prevention of a needless escape of blood during a function characterized, at the best, by a great quantity of unpleasant fluids discharged.

Very respectfully,

Geo. Baylis, M.D.

37 W. 48th St., New York, *October 11th*, 1875.

THE INDIA-RUBBER CATHETER.

To the Editor of The Medical Record.

Dear Sir:—In your issue of October 2d a correspondent commends the use of the India-rubber catheter in enlarged prostate. I have been using this form of instrument since last spring, and consider it admirable, and worthy to come into general use in all cases where a catheter is required.

The service one has recently rendered me constrains me to address you concerning it.

A man, who was severely injured by a recent boiler explosion, suffered retention of urine. I was called up in the middle of the night, and urgently requested to visit and relieve him. He resided several miles in the country, and I was too tired to visit him if it could well be avoided. Happening to think of the India-rubber catheter, and realizing that no harm could come from its employment by unskilled hands, I gave one to the messenger, with instructions, and he immediately entered the bladder and relieved the patient with it on his return.

It is not safe to entrust an inflexible, or styleted, catheter to hands unskilled in its use. And what surgeon has not occasionally seen injury result from their use in affections of the urethra, or their use unsuccessful altogether, in skilful hands?

The India-rubber catheter is harmless in the hands of all and in all cases, and can often be used when others will prove unsuccessful.

Chas. E. Slocum, M.D.

Defiance, Ohio, *Oct.* 5, 1875.

Trichinosis.—A serious outbreak of trichinosis is stated to have taken place in Dresden, where an officer, forty sub-officers and privates, and several civilians are suffering from the disease. The malady also is reported to have broken out in the neighborhood of Lobau.

A FLOATING HOSPITAL FOR CHILDREN.

To the Editor of The Medical Record.

Dear Sir:—At the last session of the Medico Chirurgical Society of the German physicians, held Sept. 20th, suggestions were made in reference to the summer excursions heretofore arranged by the St. John's Guild, and the question was raised, if it would not be an universal improvement to erect a so-called floating hospital—a steamer furnished in every respect equal to a hospital, and station the same at a suitable spot in the Bay, have boats running from different directions by which sick children could be admitted, and thus give them a chance to have the benefit of pure air for longer periods.

The services of one or several physicians under the supervision of the St. John's Guild would be necessary, and of great advantage to the sick visitors. A committee was appointed to investigate the system now in use of this charitable institution, to suggest improvements and report at the next meeting.

A similar suggestion to the one alluded to appeared in one of the last issues of your valuable paper, and as we don't intend to dispute the origin of the idea thus suggested, but only to express our coincidence in every respect, the Medico-Chirurgical Society instructed their secretary to inform you of the foregoing.

We have ample time throughout the winter to adopt suitable plans, procure aid, assistance and co-operation of the different medical societies, and no doubt the leader of the St. John's Guild will approve of the idea and call the floating hospital in existence as speedily as circumstances will permit.

Very respectfully,
The Medio-Chirurgical Society.

New York, *October 6th*, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Oct. 10th, 1875, *to Oct. 16th*, 1875.

Webster W., Surgeon.—Assigned to duty at Plattsburg Barracks, N. Y. S. O. 204, Mil. Division of the Atlantic, October 11, 1875.

Brown, J. M., Assistant Surgeon.—When relieved by Surgeon Webster, assigned to duty as Post Surgeon, at Fort Wood, N. Y. H. S. O. 204, c. s., Mil. Division of the Atlantic.

NAVY.

October 15.

Oberly, A. S., Surgeon.—Ordered to the Pensacola Navy Yard.

Parker, J. B., Passed Assistant Surgeon.—Ordered to special duty at the Bureau of Medicine and Surgery.

Ruth, M. L., Passed Assistant Surgeon.—Detached from the Bureau of Medicine and Surgery, and ordered to the *Minnesota*, at New York.

Beaumont, H. N., Surgeon.—Detached from the Pensacola Navy Yard and placed on waiting orders.

The U. S. Steam Frigate *Hartford* has arrived at Hampton Roads, from a three years' cruise as flagship of the Asiatic squadron. The medical officers are: J. H. Babin, Passed Assistant Surgeon; H. P. Harvey, Assistant Surgeon; and R. W. Galt, Assistant Surgeon.

Medical Items and News.

Dr. John Hughes Bennett, F.R.S.E., late Professor of the Institutes of Medicine at the University of Edinburgh, is announced by the English journals to be recently deceased. He was born on the 31st of August, 1812, and in 1829 was apprenticed to a surgeon in Maidstone. Soon after he went to Edinburgh, where, in 1837, he graduated with the highest honors as M.D. He then studied two years in Paris, and spent some time in German schools. In 1841 he returned to Edinburgh, and soon acquired influential positions, and among others the post of lecturer on histology and the use of the microscope. In 1843 he was appointed pathologist to the Royal Infirmary, and, five years after, on the resignation of Dr. Allen Thompson, he was nominated to the chair of the Institutes of Medicine in the University, a position which he filled most creditably until a recent date. His work on Clinical Medicine is the best known of the numerous and valuable contributions which he made to medical literature—almost his last work being the direction of the Report of the Edinburgh Committee of the British Medical Association on the Antagonism of Drugs. Dr. Bennett was remarkable beyond most of his fellows for unflinching devotion to science, courageous defence of his personal and scientific convictions, unsparing denunciation of what he believed to be error, and resolute furtherance of the objects which he believed to be good for the university, the profession, and the science which he loved so much. He died from the after-effects of lithotomy on a system weakened by constitutional disease, showing to the last the same courage, resignation, and faith which had characterized his life.

Dr. Edward Warren.—It is said that Dr. Edward Warren, who went from Baltimore some three years since to serve in the army of the Khedive of Egypt, just as he had arrived at the position of Surgeon General of the Egyptian army, was attacked with ophthalmia of a malignant form. After combating the disease, by all the means possible at Cairo, he was finally compelled to go to Paris, where, after six months of treatment, he has one eye permanently enfeebled, and the oculists declare that if he returns to Egypt the right eye will be compromised and lost. He has accordingly obtained an authorization to practise in France, and is said to be already in a fair way to become a popular practitioner in Paris.

Lateral Dislocation of Forearm.—Dr. Andrews, of Bellevue Hospital, finds that the case of complete outward dislocation of the forearm, recently reported by him, is not the first recorded in America, as he supposed. A similar case was reported in The Record of Nov. 1, 1867, by Dr. Theo. R. Varick, of Jersey City.

Weekly Bulletin of the Meetings of Medical Societies.

Monday, Oct. 25th.—Medical Soc. of the County of N. Y., at the Col. of Phys. and Surg., 23d st., cor. Fourth av.

Wednesday, Oct. 27th.—N. Y. Pathological Soc., at the Col. of Phys. and Surg., 23d st., cor. Fourth avenue.

Thursday, Oct. 28th.—N. Y. Medico-Legal Society, at the Col. of Phys. and Surg., 23d st., cor. Fourth av.

Friday. Oct. 29th.—N. Y. Medical Library and Jour. Assoc.. 107 East 28th st. "Report on Therapeutics," by Dr. Mary Putnam-Jacobi.

Original Communications.

REMARKS MADE BEFORE THE NEW YORK COUNTY MEDICAL SOCIETY, OCTOBER 12TH, 1875,

ON A PAPER READ BY DR. W. T. LUSK, "ON THE GENESIS OF AN EPIDEMIC OF PUERPERAL FEVER."

By FORDYCE BARKER, M.D.

MR. PRESIDENT AND GENTLEMEN:—I have listened with great interest to the paper that has been read, which I believe is the first effort of the kind to trace out the origin and development of puerperal fever by an exclusive and systematic study of its genesis, unbiassed by a preconceived theory as to the nature of the disease. It is obvious that study in this direction, if conscientiously and intelligently carried out, must be of great value in clearing up much of the obscurity which surrounds a subject that has been so fruitful in provoking discussion, and has resulted in such a diversity of theory and doctrine.

I am quite certain that all who have heard the paper read must have been struck by the marked ability and faithfulness with which the observations have been made, and the thorough honesty with which they have been reported.

I do not purpose now to offer any general remarks on the disease, but simply to make a few comments on certain points that suggest themselves to my mind by this paper, which is exclusively confined to a detail of such facts as relate to the genesis of puerperal fever in hospitals. While the immense value of hospitals is acknowledged by all, although but imperfectly appreciated by many, their usefulness and importance reach far beyond the inmates who secure the advantage of skilled and experienced physicians and surgeons in relieving suffering, in prolonging and in saving life; for by their educational mission as great schools for clinical study and clinical teaching, they radiate their blessings to every one who suffers from medical or surgical disease, in every part of the country; yet it is a deplorable fact that the hospitals themselves often originate diseases, which to a certain degree detract from their usefulness. That the good which results from them is infinitely beyond the evil, is I think so evident that no argument is needed to prove the assertion.

But in hospitals lacking in proper hygienic conditions, there is generated a poison or miasm, that develops a class of diseases, attended by a change in the fluids of the body, which are called septic diseases.

The septic diseases which peculiarly belong to hospitals, are hospital gangrene, pyæmia, septicæmia, erysipelas and puerperal fever. Their existence in hospitals is a reproach to the profession, just so far as the medical boards have the control and the power of preventing the causes. Some of these septic diseases often occur as an endemic in a hospital, but are never met with as epidemics. Pyæmia and septicæmia are never found as epidemics in private practice or in rural districts; and I have the authority of Professor Erichsen for saying that these are very rare surgical diseases in private practice. I think that these facts have a very important bearing in aiding us in settling the question as to the nature of puerperal fever. Other septic diseases—erysipelas, diphtheria, and puerperal fever—do occur as epidemics in private practice and in rural districts.

Now it seems to me that there are men who have studied the disease in hospitals alone, who have never had an opportunity to see it as an epidemic in private practice, and who have neglected to study the reports of such epidemics by able and honest observers, who have adopted the fixed opinion that its associations and complications constitute the very essence of the disease. Hence they would abolish the term puerperal fever, and substitute puerperal pyæmia or puerperal septicæmia.

And this suggests another remark: a large proportion of systematic treatises have been written by hospital men, who have studied the diseases of which they treat almost exclusively in hospitals. Hospitals afford an opportunity for complete and careful observation, rarely attainable in private practice, but many diseases are so modified by hospital influence, and especially by nosocomial malaria, that the whole truth is not given in descriptions of diseases which have been exclusively studied in hospitals. I could illustrate the truth of this statement by a reference to several systematic treatises, aside from what has been written on puerperal fever. I will, however, only refer to one, as that has a direct bearing on the subject now under discussion. In Ziemssen's Cyclopædia, now being translated and published in this country, Zuelzer asserts that erysipelas "rarely attains any special frequency and never prevails in epidemic form amongst an entire community;" a surprising statement, for numerous epidemics of the disease described by Zuelzer as erysipelas have appeared in different parts of Europe and in this country.

The septic diseases seem to be divisible into two distinct classes—the one class being specially hospital diseases, not contagious, and never occurring as epidemics. To this class belong hospital gangrene, pyæmia, and septicæmia. The two latter diseases are met with in puerperal women in private practice; but no one ever heard of an epidemic of either surgical or obstetrical pyæmia, and no one claims that either of these diseases is contagious.

The other class of septic diseases are relatively as frequent outside of hospitals as in hospitals: they are contagious, and they often occur as epidemics. In this class I would mention erysipelas, diphtheria, and puerperal fever. I do not assume to mention all the septic diseases, but I now refer only to those which are specially associated with puerperal fever.

Between puerperal fever, and erysipelas and diphtheria, there is a solidarity not found in the relation between pyæmia and septicæmia, or any other disease with puerperal fever. The intimate relation existing between erysipelas and puerperal fever was first pointed out more than a hundred years ago, and has been so strongly confirmed by numerous observations of the highest authorities in medicine, that this fact may now be regarded as conclusively settled. The work on erysipelas and child-bed fever by Dr. Thomas C. Minor, of Cincinnati, recently published, is convincing in its demonstrations of this relation, and Virchow would call puerperal fever *malignant puerperal erysipelas.* They are distinct diseases as regards their morbid anatomy and their clinical phenomena, but they are interchangeable. The poison of erysipelas will develop puerperal fever in a woman recently confined; the poison of puerperal fever will cause in an infant erysipelas, as it will also in an adult whose system is in a favorable condition for receiving the poison. I may be pardoned for giving a striking illustration of these facts, which came under my observation many years ago. In the early months of

1843, a very malignant form of erysipelas prevailed in several towns in Windham County, Conn., and I was told that every woman confined in the infected district died of puerperal fever. My first practical acquaintance with the two diseases began at this time. As I was then a young man living in an adjoining county, having but little to do, I was called upon to do my best, to fill the place of two physicians who had the erysipelas. A few weeks after, a woman was confined in the village of Poquetannoc, New London County, twelve miles from the nearest case of erysipelas or puerperal fever, but she was attended by a nurse who four weeks before had taken care of her brother-in-law, who lived in the epidemic district and died of erysipelas. The woman died on the fifth day after her confinement, of puerperal fever. Two days after her death, her infant died of erysipelas, and exactly one week after, Dr. Gay, who attended the woman in her confinement, died of erysipelas. No other cases of either erysipelas or puerperal fever occurred in this vicinity. I saw the woman and child in consultation, and I attended the doctor during his illness, and it is hardly necessary for me to add that for six weeks after I refused to attend any case of midwifery.

The solidarity between puerperal fever and diphtheria is so marked in some epidemics, as to lead Professor Martin, of Berlin, to regard the diphtheritic process in the genital organs of lying-in women as the only essential element of puerperal fever. I observed and described this diphtheritic process in several cases of puerperal fever which occurred in Bellevue Hospital in the winter of 1860–61. I do not think this was again manifest in the puerperal-fever cases in Bellevue until the winter of 1873–4, when Dr. Lusk, as we have just heard, found it characteristic in many cases. This was also observed in the epidemic of puerperal fever at the same period in the Philadelphia Hospital, and described by Dr. Joseph S. Parry, in his very able paper published in the *American Journal of Medical Sciences*, to which Dr. Lusk also alluded.

Pyæmia and septicæmia bear no such relation to puerperal fever. Either of these affections may occur in puerperal women who have not puerperal fever, or either of them may be associated with or complicate puerperal fever.

For these, and for many other reasons which I have urged elsewhere, I cannot resist the conviction that the study of the genesis of puerperal fever is the study of a distinct essential disease which attacks puerperal women, and only puerperal women.

I have recently read, I think it was in the gossipy memoirs of Raikes, the story of a substantial man in Yorkshire, England, who, some hundred years ago, was appointed justice of the peace. The first case he tried was that of a man against whom he felt a great prejudice, who was accused of poaching. The evidence was strong against the man, but to his great disgust he found the evidence in his defence still stronger, so that he did not dare to convict him. When the trial was over he swore that never again, so long as he lived, would he listen to the evidence on both sides, "for it only confused his mind, and biassed his judgment." I cannot but feel that those who regard puerperal fever as only the fever which results from local inflammations, or who consider it as but another name for pyæmia, or septicæmia, non-contagious, and never met with as an epidemic—in short, who deny that it is a distinct disease, must be morally descendants of the famous Yorkshire squire, as they refuse to examine the evidence on all sides, fearing that it will confuse their minds and bias their judgments.

The great practical end in view in the study of the genesis of puerperal fever is, to ascertain what causes of the disease are preventable. A very great advance has been made within a few years in our knowledge of the various agencies which contribute to septic poisoning, and still more striking has been the addition to our resources in the use of antiseptic remedies. Every intelligent obstetrician appreciates, at the present day, as they did not in former periods, the great importance of averting all the predisposing causes of the disease in the patient herself, by an efficient treatment of anæmia and albuminuria in the last periods of pregnancy, a condition which so tends to blood deterioration, and which so favors the absorption of septic poison—by securing to the patient perfect ventilation and good air during labor and the puerperal period, and avoiding the old error of keeping the room too hot, with every crevice closed that will admit air; by preventing delay in labor, in the early resort to the use of the forceps or other resources of our art, when necessary; by effecting the early removal of the placenta by compressing the uterus, thus securing the efficient and permanent contractions of this organ, and thus preventing the retention and decomposition of clots, and the torture and exhaustion of after-pains; by removing immediately after labor all soiled clothes and bedding, and carefully watching that none are ever after permitted to contaminate the patient; by antiseptic washes and injections, to prevent autogenetic poisoning; by good nutrition; and lastly, by guarding the patient against the dangers of infection or contagion through the medium of the nurse or the obstetrician. This is a very rapid and by no means complete exposition of the resources we have at command for averting danger from puerperal fever. The success of Winkle, at Dresden, as we have just heard in the paper of Dr. Lusk; the most excellent paper by Dr. William Goodell, "on the means employed at the Preston Retreat for the prevention and treatment of puerperal fever;" the remarkable sixth clinical report of the Rotunda Lying-in Hospital of Dublin, by the master, Dr. George Johnson, ought greatly to encourage the belief that by these and similar prophylactic measures the chances of an invasion of puerperal fever, even in hospitals, may be reduced to a minimum.

But there still remain as great determining causes of this fearful disease, nosocomial malaria and epidemy. How to overcome and to exterminate nosocomial malaria is the great problem which I confidently hope will be solved by the progress of science at no remote period. The devastation which results from this cause, in obstetrical and surgical hospitals, have led some to the extreme folly of questioning the usefulness of hospitals, and others to urge as a radical necessity the extravagantly expensive procedure of pulling down all the old hospitals, and of reconstructing them of such materials that this process can be repeated every few years. But, in the first place, this is not demonstrated to be a radical preventive of the septic diseases which result from nosocomial malaria, for there are well-authenticated reports of puerperal fever in new hospitals for maternity, and of pyæmia and of septicæmia in new surgical hospitals among the first patients received into them. In the second place, I cannot believe that chemical science is so powerless as to fail in finding some means of wholly exterminating this miasm. The experiment has been already successfully tried in this city. I was struck by the remark in the paper of Dr. Lusk, that after the lying-in wards at Bellevue were given up on account of puerperal fever, they were occupied as surgical wards in the service of Dr. James R. Wood, and that not a single case of septic disease has occurred in them. I am informed by Dr. Dennis, house-surgeon at the present time, that there have been eighteen amputations in patients in these wards, and not a single death. But in some of the surgical wards the fatality from septic disease was really frightful, as reported by the surgeons in attendance; and Prof. Doremus was employed by the Commissioners to disinfect them. I will give his method of procedure, as I wrote it down from his verbal statement to me.

The purification of the surgical wards in Bellevue Hospital was accomplished during the spring and summer of 1875, by the employment of large volumes of *chlorine* gas.

This powerful disinfectant was resorted to because all the poisonous emanations from the human system are decomposed by it, and thus rendered inert (carbonic acid gas excepted); also because of its diffusive power. Strips of paper were pasted over the crevices around the windows and doors, before generating the chlorine.

Two sheets of lead about eight feet long and four feet wide were turned up at their edges and placed on the floor of the ward to be treated.

In these leaden receptacles several hundred pounds of black oxide of manganese and common salt were placed, to which water was added until the mass, when thoroughly stirred with wooden shovels, had the consistency of a thick mud.

Bowls, basins, and pitchers of sulphuric acid were placed around the leaden vessels in readiness to be applied to the black mixture. To eliminate all the chlorine, the acid should equal the weight of the salt and manganese combined. Water was then poured over the floor to dampen the wood, and the ward was filled with steam until the moisture condensed on the ceiling and walls. The air of the room was so saturated with partly condensed vapor that we had to grope our way towards the vessels containing the sulphuric acid.

The several assistants then held said vessels over the mixture of manganese and salt, and at a signal all poured out the acid at the same time; then hastened to the second leaden trough, applied the acid and rushed out of the door to escape inhaling the chlorine gas which was liberated in immense volumes. Since the amount of poisonous gas was so great that it would have proved fatal to any one entering the apartment, the doors were securely fastened to guard against such an accident.

After the lapse of twenty-four hours, the vessels were again filled with sulphuric acid and placed around the leaden pans. The mixture was then rapidly stirred, and the second application of acid made as in the first instance.

For these two treatments about a carboy of sulphuric acid (160 lbs.) was employed.

After a second twenty-four hours' exposure of the ward to this gas, the windows were thrown open, the residuum of sulphate of manganese and sulphate of soda was removed, with the leaden and other vessels, and the walls and floor scrubbed and dried.

The chlorine was generated by this method, rather than by the addition of hydrochloric acid and manganese, not only because it is cheaper, but because the heat generated by mixing sulphuric acid and water rarefies the gas and facilitates its dissemination through the room and its passage into the porous walls.

Chlorine is comparatively inefficient unless moisture is present, hence steam was employed as described.

After one ward had been thus disinfected and ventilated, the same large leaden vessels were taken to an adjoining ward and the process repeated.

Especial stress is laid on the importance of generating enormous volumes of the chlorine gas, that it may thoroughly permeate the walls. As its odor is very pronounced, persons are liable to err in regard to the quantity, and they merely produce a bad smell and signally fail to destroy the virus with which old or even new walls are at times impregnated.

The *water-closets* were purified by the use of *ozone*.

This active form of oxygen was generated by mixing equal weights of manganate of soda and sulphate of magnesia in a dry state, and sprinkling this mixture in and around the basins at night, so that it might remain for a longer period than if applied in the day-time.

When brought in contact with water, *permanganate* of soda is produced, which decomposes in contact with the impurities of the sink, and evolves ozone, by which agent the disgusting and poisonous substances are decomposed, deodorized and rendered harmless.

This treatment was repeated to secure purification.

As this is a cheap method for producing a *permanganate*, the reaction may be of interest.

$$3(MnO_3,\ NaO) + 2(SO_3.\ MgO) = (Mn_2O_7,\ NaO) + MnO_2 + 2(SO_3,\ NaO) + 2MgO.$$

Three equivalents of manganate of soda, and two of sulphate of magnesia, produce one equivalent of permanganate of soda, one of binoxide of manganese, two of sulphate of soda, and two of magnesia.

One hundred pounds of manganate of soda, and the same weight of sulphate of magnesia, were employed. For generating the chlorine in the different wards over five thousand pounds of the black oxide of manganese, twenty-five sacks of salt, and the equivalent of sulphuric acid were used.

Since this disinfection of the hospital, I am informed by members of the House Staff that there has been but one case of pyæmia or other septic disease in the hospital, and this was a very doubtful one. By the methods adopted by Professor Doremus, or some other method improved by the progress of chemical science, who can doubt that in the future we shall find hospitals as securely freed from nosocomial malaria as we are now protected from small-pox by vaccination.

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ANCIENT AND MODERN INUNCTION IN HEALTH AND DISEASE.

By E. C. ANGELL, M.D.

Anointing, or inunction, is one of the primitive processes of human luxury, invigoration, and refreshment. It was employed at so early an epoch that it is by no means easy to trace its origin in remote antiquity. Careful research, however, discovers evidence of this practice among almost all the ancient nations, although it is often impossible to determine the exact nature of the process, the character of the ointment, or even the precise object of its application.

Among the Jews the act of anointing, as recorded in Scripture, was of the simplest character, and consisted usually in pouring oil upon the head from a horn or other receptacle, such as the alabaster box, broken that the precious ointment it contained might be poured upon the head of Christ, as he sat at meat in the house of the Pharisee. This form of anointing was customary as a mark of distinction, as in the case of kings and priests. Isaiah refers to oil as ointment in medical treatment, and anointing was prescribed for the sick by St. James. An oil-bath, according to Josephus, was one of the remedies employed in the case of Herod. The allusion in the Psalms to the ointment that ran down on Aaron's beard, shows also that oil was used with a profusion doubtless pleasing to the recipient, but which would be far from gratifying to the average American or European of the nineteenth century.

Inunction of the whole body was also practised to some extent in Palestine, in connection with the bath, but among the Greeks and Romans, the two nations which, with the Jews, have impressed themselves most strongly upon the civilization of to-day, the process of what may be called hygienic inunction took a much wider range. The anointing of the Grecian athletes, as a preparation for the exercises of the gymnasium and the national games, was doubtless as thorough a rubbing as could well be administered, and its employment by those who made physical perfection the chief aim of their existence, is ample proof that it was found beneficial, promoting at once suppleness and strength. It was customary to mix sand with the oil hus used, and after the contest the athlete was anointed again, with a view to restoring the tone of the strained muscles. So important was the anointing considered, that special slaves, known as *aliptæ*, were set apart for this purpose.

That the custom of anointing, in connection with the bath, is of great antiquity, appears from Homer, who says in the Odyssey:

> "Sweet Polycaste took the pleasing toil
> To bathe the prince and pour the fragrant oil;"

and again in the Iliad Juno anoints herself with "oil ambrosial sweet;" and Venus anoints the body of Hector with oil scented with roses.

But it was in the Roman baths of Caracalla, of Constantine, of Diocletian and Titus and other emperors, that the art of anointing was carried to its greatest perfection as a means alike of pleasure and of health. It became of such importance, that in all the great *Thermæ* a special room. known as the *unctuarium* or *elæothesium*, was provided merely for the keeping of the oils and perfumes. In an ancient painting, showing the apartments of a Roman bath, the *unctuarium* appears like an apothecary's shop, filled with an immense number of vases. So essential did the Roman bathers consider the process of anointing, that they indulged in it twice in each bath, at the beginning, when a comparatively cheap oil was employed, probably without perfume, and again at the close, when costly balsams and fine perfumes were used without stint, being rubbed over the entire body, even to the soles of the feet. The variety of these ointments was very great—cloves, cinnamon, lilies, lavender, myrrh, roses, and many other fragrant substances being used in their manufacture. It was even customary to apply different unguents to different parts of the body during the same bath; oil of wild thyme being rubbed on the head, neck and eyebrows, and oil of watermint on the arms. The rich had precious ointments of their own, which were carried to the baths in small vials of alabaster, crystal or gold. The use of these unguents required the services of many attendants, a point concerning which Spartianus tells an amusing story. The Roman emperor Hadrian, seeing a veteran soldier one day rubbing himself against the marble at the public baths, asked him why he did so. The veteran answered, "I have no slave to rub me;" whereupon the emperor gave him two slaves and sufficient to maintain them. Another day several old men rubbed themselves against the wall in the emperor's presence, hoping for similar good fortune, when the shrewd Hadrian, perceiving their object, directed them to rub one another!

The luxury of the anointing process, as practised by the Roman bathers. is well set forth in Bulwer's ingenious romance, "The Last Days of Pompeii," which was written during a residence at Naples. with frequent visits to the baths he describes. Glaucus and Lepidus, two of the personages of the story, after their progress through the bath, meet at last in the *tepidarium*, or warm air-chamber. where, says the author:

"Now the main delight and extravagance of the bath commenced. Their slaves anointed the bathers from the vials of gold. of alabaster or of crystal, studded with profusest gems, and containing the rarest unguents, gathered from all quarters of the world. The number of these smegmata used by the wealthy would fill a modern volume—*Amoracinum*. *Megalium*, *Nardum,—omne quod exit in um.*—while soft music played in an adjacent chamber. and such as used the bath in moderation, refreshed and restored by the grateful ceremony, conversed with all the zest and freshness of rejuvenated life."

It must not be supposed, however, that the anointing process was by any means confined to those who bathed in a state of health. Galen, in his tenth book, in describing the treatment of a case of marasmus by means of the bath. explicitly directs that the patient be carried into the tepidarium, where his whole body must be anointed with oil. Celsus also, in prescribing bathing for those who suffer from affections of the head, not only directs a preliminary anointing. but also says that at the conclusion of the bath the head ought to be rubbed for some time. afterwards dried, and then anointed anew.

Frequent allusion is made to this process in Cameron's "Baths of the Romans," which was published over a hundred years ago, and the late Dr. John Bell, in his able and exhaustive treatise on baths. refers as follows to the anointing process:

"Although we can hardly expect to see a renewal of the practice of inunction, either after the bath or between its stages, to the same extent as in ancient times, yet certainly in many cases it might advantageously be revived. both as a part of medical treatment. and as a means of protection against great and sudden exposures to extremes of temperature."

The opinion of Dr. Bell concerning the advantages of a revival of the process of inunction is remarkably sustained by the experience of Dr. William Taylor, surgeon to the Clerkenwell Infirmary, London. In 1850. Dr. Taylor published a small volume entitled "A New and Successful Treatment of Febrile and Other Diseases, through the Medium of the Cutaneous Surface. Illustrated with Cases." This book appears to be rare, the only copy I have seen having been kindly lent to me by Dr. Otis, and some citations from it, I apprehend, may prove as novel as they are interesting. Additional weight may be given to this work by reason of the marked caution of the author, and his reluctance to lay his method of treatment before the public, until its good effects had been demonstrated by long experience. Their importance may be judged from Dr. Taylor's statement, that during the twelve years, from 1837 to 1849, between 200 and 300 cases of fever occurred at the Clerkenwell Infirmary, without a single death in idiopathic cases; whereas in 1836, before his plan of treatment was adopted, twelve patients died of typhus in one month. As early as 1829, Dr. Taylor observed that fever frequently disappeared in cases where workhouse patients also suffering from scabies were treated for the latter disease with the warm bath and the compound sulphur ointment. An alterative with saline medicine administered in these cases had the credit of curing the fever, but at length recovery took place, in a case where no medicine had been given, and the inunction fixed his attention and led to a series of experiments in the hot stage of fever, with various simple ointments, from which he concluded that lard was the ingredient chiefly worthy of notice. After still further trial with oil, wax and other substances, he eventually mixed lard and suet in equal proportions, and melted them carefully over a slow fire, and the combination, having acquired about the consistency of common tallow, was found to answer every requisite. This came to be known in Dr. Taylor's practice as "hard ointment," and its application was found highly beneficial in common inflammatory fever, typhus, scarlatina, measles, dropsy, phthisis, insanity, delirium tremens, and hydrocephalus. A multitude of successful cases occurred which it was impossible to record at length in a small volume of 170 pages, but those which are given afford ample illustration of the benefit of a judicious and thorough treatment of the skin in febrile and other morbid conditions. Dr. Taylor did not rely entirely upon the "hard ointment," but also employed other remedies to act upon the internal organs, although in one striking case of typhus, that of Ann Binham, age 23, the patient obstinately refused to take medicine, and yet recovered from a severe attack in twelve days by inunction alone.

With reference to the time and mode of applying the ointment, Dr. Taylor says:

"I have found that it should be rubbed in night and morning, and more frequently in urgent cases, in every part of the skin which is hot and dry. It should be done freely, but gently, during from half an hour to an hour at a time—indeed, until the skin is saturated, when from being harsh, hot and dry, like washed leather, it becomes soft, and yields for the most part, after a few applications, the feeling of velvet. When the skin is in the dry and harsh state of fever it is astonishing how large a quantity of the ointment must be rubbed in before the skin is saturated; but so soon as the latter becomes cool and soft, comfort ensues, and the patient is placed in a vastly improved condition; but dry rubbing does not soften the skin and produce the same free and healthy action.

"When the ointment has been well rubbed in, the countenance indicates its good effect in a surprising manner, and the unctuous friction is superior to the cold or vapor bath, especially in this respect, that with the ointment the object in view is at once attained, the result permanent, and no danger incurred."

Concerning the precise action of fever upon the skin, Dr. Taylor says:

"When fever has set in, the skin, which is naturally highly vascular, and abundantly supplied with nerves, is thrown into a morbid state; it becomes sensitive to change of temperature, and to the touch; it is dry, harsh, and hot; the pores and exhalent vessels become obstructed; the sebaceous glands cease to perform their function; the whole cutaneous surface is parched, dry, and contracted, much resembling chamois leather, and has lost a portion of its vitality. Such a condition of the cuticle is exceedingly obstinate and very difficult to remove, whilst the method of treatment usually adopted is tedious, and requires much time and diligent perseverance. Medicine introduced into the stomach must be continued a long while, and is very slow in restoring the functions of the skin, yet very readily is this state of the skin completely changed by a few applications of the hard ointment, and all symptoms depending on that state are removed at the same time."

The advantages of inunction in febrile conditions Dr. Taylor states as follows:

"Its use extends to all inflammatory, typhoid, and scarlet fevers, measles, and every instance of acute inflammation where there is much heat and dryness of the surface. Fever assuming all the typhoid symptoms will be found to change its character completely under this treatment in twenty-four hours. It especially soothes the nervous system, procures sleep, lessens the frequency of the pulse, allays the heat of the skin and correspondingly the thirst. The pulse may be reduced from 120 to 90 in a few hours after a few applications of the ointment. It corrects the fetid and offensive odor arising from patients; contagion seldom spreads after its use, very rarely even in crowded rooms. When early employed the fever is prevented from running into the continued type, and the patient soon becomes convalescent. Finally, it should be observed that it is always at command, perfectly safe, harmless, and is, perhaps, never contraindicated."

In dropsy of the febrile or inflammatory form, Dr. Taylor found that inunction produced the most favorable results, even in cases treated unavailingly by eminent physicians, and the good effects of this peculiar method were equally striking in cases of hydrocephalus, the improved action of the skin serving effectually to remove the watery accumulations caused by these diseases.

Of inunction in phthisis Dr. Taylor says:

"I have seen great benefit derived from it in incipient cases, as well as in other pulmonary complaints. In acute bronchitis, attended with a hot skin and great expectoration, I have witnessed the greatest benefit, and have known the expectoration to be reduced from a pint in twenty-four hours to three or four ounces in the course of a few days."

In 1830, Esther Cook, age 37, a confirmed lunatic, was admitted to the Clerkenwell Infirmary, and treated for scabies with the usual sulphur ointment. After two or three weeks of rubbing in, her intellect was found to be restored, a fact which led Dr. Taylor to employ the hard ointment in treating cases of mild insanity. The result showed in a surprising manner the sympathy existing between the skin and the brain, and the beneficial effects of inunction upon morbid cerebral conditions, not only in ordinary mania, but also in delirium tremens.

Dr. Taylor's faith in inunction was thoroughly tested in his own case by a severe attack of typhus, which he cured by the free application of the hard ointment to the skin, to the exclusion of other medication, a result which naturally confirmed his confidence in the system.

I have found no striking cases of medical anointing recorded in this country, except in a suggestive paper by Dr. W. R. Fisher, published in THE MEDICAL RECORD of the 27th of March last. A child of four months, almost *in articulo mortis* with cholera infantum, and given up by the family physician, after thorough treatment according to the approved methods, was saved by hourly inunctions from head to foot with warm sweet-oil. "After each application," says Dr. Fisher, "it seemed to be more and more soothed and strengthened. The vomiting ceased; the passages from the bowels improved in color and consistency, and diminished in number." The child recovered entirely, owing its life without doubt to the use of oil by inunction. In another case, a child of the same age, an obstinate intestinal disorder, which had defied internal medication for months, yielded in a week to inunction with sweet-oil applied every night. Dr. Fisher further says:

"In acute inflammation of the lungs, pleura, and bronchial tubes, I have several times seen most excellent effects follow from the use of inunctions. In the lobular pneumonia of children there is no remedy with which I am acquainted that will so speedily induce sleep, relieve distress, and put a stop to the short moaning cry as warm sweet-oil, frequently applied to the whole body. Inunction is likewise of great benefit oftentimes in chronic diseases of the lungs, phthisis, chronic pneumonia, bronchitis, and emphysema."

It is probably in cases of this character, in phthisis especially, and with cod-liver oil as the unguent, that the profession generally is most conversant with inunction, and most thoroughly convinced of its efficacy. Dr. John Hughes Bennett, who introduced this oil into British medical practice as a remedy for pulmonary consumption, is on record in the *Edinburgh Medical Journal* for April, 1853, as declaring that there is every reason to believe that inunction might be very beneficial. In this way, he explained, the fatty matter is introduced into the lymphatics, and serves to elaborate blood through the agency of the mesenteric glands.

Dr. H. W. Fuller, in his valuable work on "Diseases of the Chest," after referring to inunction among the ancients, says:

"It is in constant use in the present day among the natives of Western Africa, who suffer little from the ravages of phthisis. Even in our own country accidental inunction takes place to a limited extent in certain classes of the community. Persons engaged in wool factories, where large quantities of oil are employed, tallow-chandlers, butchers, and others, are necessarily in contact with fatty matter throughout the day, and it has been observed not only that they are usually well nourished, but that they are less liable than others to suffer from consumption. But more than this: experience has established the fact that the endermic method of introducing the oil is often very serviceable in phthisis. Cases have been published by Dr. Simpson, of Edinburgh, and other observers, which are quite sufficient to prove its efficacy, and in my own practice several instances have occurred in which its operation has been signally beneficial. One gentleman whom I saw in consultation gained a stone and a half in weight in less than three months by the persevering use of it, and the physical signs of pulmonary disease subsided greatly at the same time."

I may remark here, in confirmation of the benefits of accidental inunction mentioned by Dr. Fuller, that in a cotton-seed oil-mill at Cos Cob, Conn., now abandoned, coughs and colds were unknown among the workmen in the press-room in constant contact with the oil, but were common enough among the men employed outside. The suppleness of the joints of the press-room men was remarkable, and the full muscular development of those who had worked there long was no less noteworthy. One workman, employed there ten months, is said to have gained twenty-two pounds in that time, while another, in a still shorter period, enlarged the measurement of his chest from thirty-five to thirty-eight inches.

We have now, it will be observed, the testimony of Dr. Bennett in favor of inunction with cod-liver oil in phthisis; the testimony of Dr. Fuller to the same effect, and also to show the anti-phthisical advantages of incidental inunction in the course of certain occupations; the testimony of Dr. Fisher as to the benefits of rubbing with warm sweet-oil in the pulmonary affections of children; and also the testimony, before cited, of Dr. Taylor as to the great utility in lung diseases of inunction with his "hard ointment," composed of equal parts of lard and suet. Here are marked therapeutic results derived in the same class of cases from inunction with one vegetable and two animal unguents. It may be inferred from this that the beneficial effects arise from the oleaginous quality of the oil or ointment and from the rubbing, rather than from any special therapeutic property such as is generally conceded to belong to cod-liver oil. This inference, if just, is of much importance, for it leaves us at liberty in establishing a scientific system of medical inunction, to choose that unguent which is the most easily preserved pure, which is the most soothing to the skin, most pleasant to the sense of smell, and in a word most agreeable to the person anointed, whether in health or disease.

We come next to the reasons why inunction, notwithstanding its great demonstrated advantages, and notwithstanding its once almost universal use by the conquerors of the world, is now so neglected and so little esteemed by the profession and the public. One of the best modern works on electricity contains this suggestive remark: "There is little doubt that if electricity could be given in the form of pills or powders as successfully as it is now employed, its use would be increased one thousand-fold." There is in my opinion as little doubt that if a dose of inunction could be taken as quickly and as easily as a capsule or a lozenge, "oleaginization" would speedily rank with the use of electricity and ether, opium and quinine, as a standard resource in therapeutics.

Such a ready administration of inunction is of course an impossibility. Effective anointing must always and inevitably consume a certain amount of time which will cause hesitation on the part of patients of industrious habits who are not too ill to move about and attend to business. The only way to obviate in any considerable degree this impediment in the way of popularizing hygienic inunction is to make the process so agreeable that it will be found an enjoyment instead of a hardship.

To accomplish this, two things are necessary. These are: *first*, a satisfactory unguent; and *second*, a competent anointer.

A satisfactory unguent must be pleasant or at least inoffensive to the smell: it must not be either gummy or sticky, and it must leave no trace of oil upon the skin after the conclusion of the process. It should also possess properties which will prevent its decomposition by the warmth of the body, that it may not like most unguents become rancid.

The second requisite, a competent anointer, is even more essential and more difficult to secure. Dr. Taylor remarks especially upon the trouble he experienced in finding persons strong enough and patient enough to apply his hard ointment successfully, and when besides strength and patience we require skill enough to make the process a pleasure, we shall not be surprised if we find competent anointers few and far between. Men who are properly trained as rubbers or shampooers in the best bathing establishments are best calculated to supply this want, and to them we may look not in vain for competent anointers. Their labor alone in friction and manipulation often serves an important remedial purpose in rheumatism, paralysis and other diseases, and when to the advantages of dry rubbing the benefits of a proper unguent are added, it is plain that a hygienic combination of no small efficacy is formed. Some attribute the benefits of the anointing mainly to the oil, and others mainly to the rubbing. The truth is both play an important part, and each assists the other. Without rubbing, the unguent would necessarily be imperfectly absorbed, and much of its possible effectiveness would consequently be lost; the pores would be covered, the clothing smeared, and the patient disgusted. Without lubrication thorough searching manipulation is rendered practically impossible from the tendency of dry rubbing to chafe, excoriate and irritate the skin, to an extent often that proves a source of torture.

That the rubbing in of the ointment is a highly beneficial part of the process of inunction, and that its skilful performance is essential to the highest success of that process, I have no doubt; but I am equally certain that in many cases it is the oil directly that accomplishes the greater part of the resulting benefit.

In the wide variety of conditions in which inunction is clearly indicated the aim is generally to effect one or more of the following results:

1. To strengthen weak lungs, as when bronchitis or pneumonia is threatened, or either has been successfully combated, in which event inunction should be followed up daily until the case has been conducted through convalescence to complete restoration. Its value in cases of this character does not admit of question. As early a writer as Pliny says, that olive-oil is good to warm the body and fortify it against cold. The traveller Galton verified this in his own experience, and it was a knowledge of the warming qualities of inunction that enabled Webb to perform the unparalleled feat of swimming the English Channel, the unguent used in his case being the oil of the porpoise. Many a sufferer whose sensitive organization makes him shrink and shiver at the thought of winter long before its approach, might by judicious and persistent inunction escape the expensive and hateful necessity of abandoning home, business and friends every winter for an enforced sojourn in a Southern climate. We can produce examples of this class, who, for the winter and spring months, by frequent recourse to inunction have not only escaped colds, but have found positive pleasure and recuperation in the Arctic weather itself which they had hitherto so much dreaded.

2. To remove debility of whatever form arising from impaired nutrition. Under this head marches the great army of dyspeptics, who will find meat and drink, weight and strength, in inunction. The cases cited from Dr. Fisher's paper illustrate the remedial effects of inunction upon the worst disorders of the digestive system. According to my own observation, improvement in digestion and increase of weight have been the ordinary results of frequent inunction. In one marked case, that of a young man greatly run down by overwork of the brain, twelve pounds was gained in three weeks by inunction on alternate days, after the failure of a three months' trial of other means of recruiting. Within the past fortnight another young man suffering from dyspepsia, severe constipation, piles, some fever and great depression of spirits, has been treated with daily inunction for nine successive days, and has gained in that time seven and one half pounds, has entirely recovered his spirits, and is now practically well in every respect. Ordinary medication tried in his case had not helped him at all.

3. To allay insomnia, hysteria and incipient insanity. Dr. Fisher mentions a diminution of nervous irritation as one of the effects of inunction; and its sedative influence upon excitement, whether febrile or nervous, was very marked in Dr. Taylor's practice. I have often seen patients drowse under the process; and cases have occurred in protracted insomnia, when sleep had proved impossible for several successive days and nights, despite medication, where the process of inunction before completion has left them in a profound sleep, which has usually been uninterrupted until the morning hours were well advanced, when the sufferer has awakened practically to new life.

4. To relieve rheumatism and paralysis. In these cases the rubbing is probably the major factor of the result, being greatly facilitated, however, by the unguent, which doubtless directly as well as indirectly in some degree enhances the benefits.

5. To abort fevers. The efficacy of inunction in breaking up fever after it was fully established, as recorded by Dr. Taylor, seems to indicate clearly the wisdom of employing it to avert febrile attacks before they are completely developed.

6. To guard against contagion. In the treatment of the plague inunction was found to be not only the best remedy in the cure of the disease, but the best protection against its spread, none of those engaged in anointing having ever been known to contract the malady. In many cases where physicians and others are exposed to infection, or are particularly liable to it, regular inunction during such exposure, or until the susceptibility is overcome, would doubtless be a prophylactic measure of great value.

An objection which is sometimes brought against inunction deserves brief mention. This is the argument that the process must choke the pores, and thus impede the functional activity of the skin—certainly a very undesirable result. Dr. Taylor and others who have practised inunction largely have observed no evidence of such obstruction, but rather a marked improvement in the skin's action; and I am satisfied that perspiration is more facilitated than hindered by thorough rubbing with any smooth, fine, pure unguent. By such rubbing the particles or minute globules of oil are forced through the epidermis, and brought in contact with the lymphatics and blood-vessels of the cutis vera, by which they are taken up and conveyed into the circulation. Without friction the chief part of the unguent would remain upon the skin, a small portion being probably drawn, by endosmosis, through the cuticle. The remainder would cover the surface, and would of course more or less effectually check perspiration in the skin beneath. With thorough rubbing, however, the unguent is forced through the epidermis and carried off, so that nothing is left to clog the sudoriferous ducts. The idea that these ducts absorb the oil and thus become choked, is of course idle, their function being purely excretory; and the notion that the oil is rubbed in through them is equally groundless, as may be seen from the fact that it is much easier to rub oil through the thin epidermis of the back, with its less than five hundred pores to the square inch, than through the thick epidermis of the palm of the hand, with its 2,800 pores to the same area. Further than this, that the action of the skin is not checked, is made doubly sure by the very practical fact, that when one arm or one leg is anointed with thorough rubbing, and the other is left without oil, the anointed limb will perspire in hot air as soon and as freely as the anointed one, and in most cases sooner and more copiously.

During the latter part of 1873, I became acquainted with vaseline, a product of petroleum, which is now pretty well known to the profession and the public. This possessed more of the qualities of a perfect unguent than anything I had before seen, and I sought out the manufacturer and ascertained that he could give me a still further refined product from the same source. This preparation, which I have found the most satisfactory and beneficial in inunction, is white, translucent, odorless and tasteless, and does not, like animal or vegetable oils, become rancid with exposure or age. Being composed largely of carbon, it possesses antiseptic properties in common with charcoal and in a form much more convenient for many purposes. In practice, this unguent is generally perfumed, which does not alter its essential qualities. In its usual state it is, in consistency, a soft solid, but it may be liquefied by holding the small bottle containing it tightly in the hand for a few minutes. It may be objected to this substance that it is a mineral product, whereas in the cases of successful inunction on record either animal or vegetable oils were used. If, as I believe, the benefits from the unguent arise from its distinctively oleaginous qualities, it is hard to show that a mineral oil may not be equal or even superior to oils of vegetable or animal origin; and it should certainly be no detraction from this substance, that it is furnished by the same kingdom of nature that gives us two such remedies as iron and mercury. I am not, however, so dazzled with the merits of this preparation that I would not gladly employ a better if any should be presented. Indeed the time may come when our unguents will be as numerous as those of the Romans; for I am convinced that "oleaginization"—general inunction for hygienic or therapeutic purposes—has a future before it, and is destined ultimately to develop such value that it will be recognized and employed by every enlightened physician.

Progress of Medical Science.

The Inner Surface of the Uterus after Parturition.—The results of the latest researches with regard to the changes which take place in the uterine mucous membrane during gestation and after parturition, are presented in a recent paper by Dr. Leonard Wheeler. The views which he advocates may be stated briefly as follows: The mucous membrane of the unimpregnated womb consists of two layers: superficially, of a layer of cylindrical ciliated epithelium, and deeper, of a layer composed of connective tissue and fibre cells. From the superficial layer numerous follicles dip into or penetrate the connective tissue layer as far as the muscular stratum. In pregnancy the superficial or epithelial layer disappears, and the layer previously underlying it now becomes greatly thickened and more cellular. The cells are exceedingly abundant towards the surface, where they are round in shape, and are surrounded with but little intercellular substance, and have the appearance of epithelium, though doubtless derived from the connective tissue. They cover over and conceal the follicles, which lie imbedded in the tissue beneath. For the purpose of description two layers of the altered mucous membrane may be described: A lower, consisting of glands and spindle-shaped cells; and an upper, nearest the fœtus, consisting of round cells in close proximity to each other. By means of this upper cellular layer of the decidua the union is effected between the maternal and fœtal portions of the placenta, and it is through this layer that the line of separation takes place in delivery; consequently the follicles all remain intact within the remaining portion of the mucous membrane of the womb. The cellular layer undergoes rapid degeneration after parturition, is exfoliated, and disappears in the lochial discharge. In this way the buried glands again emerge, and their orifices are exposed. The inner surface of the uterus is soon studded with innumerable little islets of epithelium, from which a rapid proliferation proceeds, and finally, as the uterus continues to contract, it brings the epithelial islets nearer and nearer together, the entire cavity of the uterus is supplied with a new epithelial lining, to which is afterwards added a fringe of cilia.—*Boston Med. and Surg. Jour.*, Aug. 12, 1875.

Nitrite of Amyl in Sea-Sickness.—Mr. Croehley Clapham, from his personal experience, and in a large class of patients, finds that the nitrite of amyl is the best remedy to be employed (spinal ice-bags might be excepted, but they are not readily accessible), his theory is based upon the belief that undue congestion of the spinal cord is the proximate cause of the malady. He reports the post-mortem examination of a man who was accidentally killed while in the very act of vomiting, and in whom nothing abnormal could be found, with the exception of intense congestion of the spinal cord. The record also adds that the heart was wounded, but only by the fatal blow. This fact recalled to him the similarity of appearances presented by the spinal cord of an epileptic patient who had died in the "status," thus leading him to believe that the nitrite of amyl, which in the hands of Dr. J. Crichton Browne had proved so valuable in the epileptic "status," might be advantageously employed in the treatment of sea-sickness.

Mr. Clapham has used the remedy in 124 cases, with success in 121, in whom there was no return of the vomiting after the administration of the nitrite; the remaing three cases only required a further dose or two of the remedy. His mode of administration is by inhalation, three drops on a handkerchief being held close to the patient's nose. The inhalation should be rapid, so as to obtain the full influence of the drug without a too free admixture of air. Not more than the above dose should be used without medical advice.

The action of the remedy, by relieving the hyperæmia of the spinal cord, may be evidenced by a throbbing sensation in the temples, sometimes rather disagreeable, and by a more or less general flushing and increased warmth of the surface of the body. This warmth is soon followed by a comfortable sleep. Should the sickness recur, which it may do after the lapse of twenty-four hours, the inhalation should be repeated. While under treatment, the patient should be in bed, so as not to interfere with the subsequent sleep; and Mr. Clapham also thinks that it is better to allow one fit of vomiting to take place before using the remedy, not only to insure the *bonâ-fide* character of the seizure, but also because he considers it advantageous, unless the patient be in a very weak state of health.—*The Lancet*, August 21, 1875.

The Physique of Factory Children.—Mr. Charles Roberts, as a result of extensive investigations on the above subject, arrives at the following conclusions as to the physical condition of these children in England. They are fairly well developed, and remarkably free from constitutional diseases; in general conformation of the body they do not compare favorably with the agricultural population; flat-foot, with a general disposition to knock-knee, is a very common affection among them, while both are rare among the agricultural, among whom there is a general disposition to the opposite state of bow-leg. The development and condition of the teeth in the factory children are very unsatisfactory. Their personal habits contrasted very unfavorably with those of the agricultural districts, and yet, with the exception of flat-foot and the somewhat stunted growth of the children, nearly all of the disadvantages the factory children labor under are to be attributed, in the opinion of Mr. Roberts, to social causes rather than to factory work. He gives tables of weights of various classes of children, showing that the factory children compare favorably in this respect with other children in similar social position, and that they have much improved in weight during the past forty years.—*The Lancet*, August 21, 1875.

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OUR RELATIONS TO PHARMACEUTISTS.

In a previous number we took occasion to remark upon the liability of the degeneration of pharmacy into a mere trade, in consequence of the large business done in patent medicines. The more the subject is viewed from that standpoint the more probable does it seem that the deplorable end is not far off. Even by the majority of those men who would wish to do otherwise, it is asserted that the sale of these nostrums forms a great proportion of their income—so much so that they frankly acknowledge that they cannot afford to dispense with it. They say that they are meeting a popular demand for these articles, and if they do not offer them for sale some others will. This, it is true, is an old argument in favor of evil-doing, but as often as it has been offered it has been impossible to prove that two wrongs make a right. Still, it is the best reason that can be given for acts of which the higher-toned pharmacists are justly ashamed.

In looking around for some remedy for the evil, we invite a conflict between conscience and interest, which, from a strictly business point of view, it has always been most difficult to settle. We sympathize with the apothecaries in their honest endeavors towards reform, and sincerely hope that they may result in something more than discussions and the passage of resolutions in pharmaceutical associations. Not long ago there was a great deal said of physicians who kept drug-stores, and the objection made to the practice was the countenance which these positions gave to quackery. Although they did not openly advise their customers to purchase them, they nevertheless offered them for sale, and in so doing tacitly abetted fraud. The same excuse was offered by drug-store doctors as is now made by the pharmacists, but with no avail. The popular professional sentiment in our larger cities at least was so strongly against the practice, that any physician who wished to be considered orthodox and respectable was forced to sever any business connection with his accessory establishment. The threat to omit the names of these gentlemen from the *Medical Register* seemed at first unjust, unreasonable, and harsh; but it was, after all, the only way to accomplish a desirable end. This step was a partial acknowledgment by the censors that it was next to impossible to carry on the usual business of a pharmacist, and still be honest to the profession of medicine. As the case now stands, the keeping of a pharmaceutical establishment is under the ban of a reproach, which, from attending circumstances, it is no easy matter to avoid. The store of the apothecary is his only means of support, and it can hardly be expected of him that he should follow the example of the physician who added pharmacy to his means of living as an extra accomplishment. What would be a mere pruning process with one would be a fatal cutting off with the other.

It is true one of the articles of the Code of Ethics, adopted by the College of Pharmacy, calls for the discouragement of the sale of these quack remedies, but practically it has become a dead letter. There does not appear to be anything particularly binding in its provisions. It reads thus:—

"Although not a legitimate part of our business custom, and the necessities of the times warrant us in keeping the proprietary medicines of the day, yet we earnestly recommend pharmacists when called upon for an opinion of their merits to discourage their use."

We need no better evidence of the attitude of legitimate and high-toned pharmacy on this patent medicine question, than that afforded by the recommendation contained in the foregoing article. The College of Pharmacy of the City of New York is probably the highest tribunal of its kind in the country, and yet, with all its reputation for honesty of purpose, uprightness of action, and zeal for the scientific advancement of the craft, it apparently dares go no farther than simply recommend such as are under the jurisdiction of its influences to do right only under qualifying circumstances.

But has the medical profession nothing to say against the miserable business of nostrum-selling? Are we not, as medical men, encouraging them by refusing to enter our protest against their wrong-doings, by countenancing them as brothers-in-arms, and by recommending them to the patronage of our patients. One can hardly enter any of these shops without being insulted by the glaring pretensions of every quack who cares to offer the pharmacist the necessary percentage for humbugging the people. It is hard to impress our patients with the evils of quackery, when we advise them to go to the very places where it is countenanced by the respectability of scientific pharmacy, and where the sign, "Physicians' prescriptions accurately prepared," is flanked in on all sides by cure-all pills, wonderful lotions, and infallible pain-killers. We might suggest the propriety of sending our prescriptions to such pharmacists as do not sell these patent medicines, but where can we find them?

THE INDIVIDUAL-TREATMENT SYSTEM.

It might naturally be inferred that this was some newly-devised method of medical treatment, whereas it is merely the modern name given in the Eastern Penitentiary of Philadelphia to the plan of prison discipline, generally known as the separate or solitary system. It only becomes interesting medically when viewed in its effects upon the health of prisoners subjected to its influences. These have been so often discussed, *pro* and *con*, that we need call attention only to one of the most recent contributions to this phase of medical literature, in the shape of a statement by the resident physician of that penitentiary, embodied in the Forty-fifth Annual Report, lately issued. Incidentally, we may state that the report of the inspectors is an inch thick, contains 227 pages of useful and somewhat labored statistics, presents numerous tables twenty inches long when unfolded, and is printed on gorgeous paper worthy of a *livre de luxe*. It is really a work in which, if we were a convict, we should take pleasure in having our vices recorded, even if the people's money must be needlessly squandered to effect such a happy result. Taking the headings of some of the tables of statistics as our guide, we find it to be an abstract of each prisoner's natural relations, his social and educational relations, his moral, industrial and local relations; and there is room enough in the volume for the domestic history of all his other relations. The physician has caught the contagion of inflation, and furnished his proportion of voluminous statistics, sometimes rather injudiciously based on the record of a single solitary individual, as in the columns devoted to numerical data of mental unsoundness, where the latter figures conspicuously as a representative of 100 per cent. in all the items of color, intemperance, conjugal relations, etc., inasmuch as he has no other unsound partner in misery with whom to share the percentage. The special feature of the medical report, however, is an effort to confirm the conclusions of a recent writer on "penology" (the word, we hope, is derived wholly from the Greek and not partially from the Latin, although the writer discusses at some length the subject of masturbation), that in referring cases of insanity of prisoners to any system as the exciting cause a great error has been committed, for it is rarely the result of simple seclusion, and that the individual treatment system cannot be held accountable for the production of pulmonary disease or of disease of any description. Figures are given to corroborate all these conclusions, which might be deemed valuable if based upon a larger number of cases. The prevailing fault of inspectors and physicians alike has been that occasional shortcoming of caterers of other kinds, the attempt to fill out lengthy tables with an insufficiency of articles.

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The Albany Water-Works, which take their supply from the Hudson River, are now completed, the capacity of the pumps being estimated at 10,000,000 per diem.

Reviews and Notices of Books.

Lessons on Prescriptions and the Art of Prescribing. By W. Handsell Griffiths, Ph.D., L.R.C.P.E., Licentiate of the Royal College of Surgeons, Edinburgh; Professor of Chemistry in the Ledwich School of Medicine, Paris, etc., etc. London, Macmillan & Co., 1875.

This book contains a series of lessons given upon the above subject, and was published in compliance with a special request made by the students who received them. The good sense of the students is shown in the desire to have these most admirable lessons published: and now that they are published, the medical student of to-day, and the practitioner as well, cannot do better than to devote a reasonable share of his time in studying and mastering the principles they inculcate; for, as the author truthfully says, "one of the most crucial tests of an accomplished physician is the diction of a typical prescription."

The study of such a book as this is rendered doubly important by the fact, first, that in general too little attention, at the present time, is paid to instruction in the "art of prescription" in our medical colleges; and, second, that so many fearful mistakes are made in this department by physicians of all classes. The well-known reputation of the author of the book is a sufficient guaranty of profit from its careful study.

The Better Way: An Appeal to Men in behalf of Human Culture through a wiser Parentage. By A. E. Newton. New York: Wood & Holbrook, 13 and 15 Laight Street, 1875.

In this book a strong appeal is made to men with reference to their influence over the character and destiny of offspring. The author firmly expresses the belief that beauty, amiability, timidity, slyness, a disposition to rove, thieve and tattle, craft and treachery, can be transmitted from parent to child with absolute certainty. In the light of this belief he traces the true source of crime to the fathers and mothers of our land, and insists that the predisposition is implanted in the children before they are born. Although the views herein contained have been said to be Utopian and impracticable, the statements of the author have been made with clearness, and his argument embraces much that is practical and of goodly report.

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Extreme Arctic Cold.—A French journal recently reproduced a paper read this year by Payer before the Geographical Society of Vienna, "On the Influence of Arctic Cold," a few extracts from which are quite interesting. The author started on March 14, 1874, on a sledge, to make fresh observations on hitherto untrodden ice-fields. The cold on that day was 42° (Réaumur) below zero. After a time the spirit ration became as thick as oil, and lost its stimulating properties. It was impossible to smoke. Cigars and tobacco were turned into ice. Pieces of metal which the travellers had with them had the same effect when touched as red-hot iron. Great cerebral disturbance took place, accompanied with extreme thirst, difficult to assuage. Every noise was transmitted to a great distance. The senses of taste and smell were almost in abeyance. Mercury could be made into balls. The secretions were augmented, whilst perspiration entirely ceased. Lieutenant Payer is known as an explorer of the highest veracity.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

TYPHOID FEVER—ANTIPYRETIC TREATMENT.

A few cases have already been reported, but the case in question presented some features which made it one worthy of study. In the first place, the boy, æt. 21, and previously healthy, when admitted with this disease was at once placed upon the antipyretic treatment, by means of quinine. To this was added, after a few days, the hot pack. He was admitted Sept. 2, and on Sept. 17 his temperature was, at 1.30 P.M., 104¾° F., when a cold pack was at once ordered. There was no evidence of complication, the aspect of the patient was not particularly marked, and the only symptom which indicated the intensity of the disease was the degree of body heat which could be properly appreciated *only* by the use of the thermometer. This was one point of interest, namely, the inability to judge accurately in all cases of the degree of temperature without the use of a thermometer.

Sept. 17, the cold pack was used at 2.15 P.M., and the temperature fell to 103⅓° F., but it rose again, later in the afternoon, to 104° F., when the cold pack was again used, and the temperature fell half a degree. The packs were repeated during the night—were continued for fifteen minutes at each application, as a rule —but in the morning of the 18th the temperature was 104½° F., when the pack was used and it fell to 102½° F. It again arose to 103½° F., but the pack again brought it down to 102° F. In the afternoon of the same day the temperature, after a pack, fell to 102° F., then to 100° F., and finally it was brought down to 99° F. This was another rather remarkable feature, namely, the great decline of temperature so short a time before death, for the case terminated fatally on the morning of the 19th, the temperature having rapidly risen to 103° F. before event occurred. Digitalis was at once administered, when the temperature fell to 99° F., but scarcely any effect was produced. The quinine was continued throughout the course of the disease. It was remarked that the fact should be borne in mind that a method of treatment which apparently should succeed does sometimes fail, and that undue enthusiasm respecting any plan of treatment of disease should be received with a certain degree of reserve and scepticism. This patient succumbed, notwithstanding the temperature was brought down to nearly the normal standard.

TYPHOID FEVER—HIGH TEMPERATURE—APPROACHING COMA.

In this case the elevation of temperature was the leading feature, and when admitted the thermometer indicated 106° F., and rising. The patient was admitted in the afternoon, almost comatose, and when the degree of heat was determined he was placed in a cold bath, and kept there almost continuously until midnight, for the rapid rise in temperature after removal necessitated its very frequent repetition. After midnight the baths were repeated every two hours until the temperature was brought down to 102° F. in the afternoon, and 101° F. in the morning, which, it was observed, is *all that should be aimed at* by the *application of cold*. It was the twenty-fifth day of the disease at the time of our visit, and the patient was doing remarkably well.

CONVULSIONS—COMA—DEATH.

The brief history of the case presents some points of interest. A female patient, who had had convulsions, was admitted in a conscious state, but soon after admission had other convulsions, lapsed into coma and died. The history obtained was very incomplete, but the general information concerning the case, before admission, pointed towards hysteria. Of course uræmic poisoning was suspected, but there was *no* œdema in the case. A quantity of urine, however, was obtained, and when tested was found to have a specific gravity of 1004, but *only a very faint* trace of albumen. Hysterical patients are liable to pass urine of low specific gravity, and here was a bit of a dilemma. But the *character* of the convulsions, those in which there was manifestly *no volition* present, associated with this condition of the urine, looked suspicious. Croton oil was administered; a hot-air bath given, which failed to produce perspiration; chloroform during convulsions, which seemed beneficial, and a hypodermic injection of morphine, but the patient did not emerge from the coma.

SLIGHT HEMIPLEGIA—MARKED LOSS OF CONSCIOUSNESS.

The case was interesting in the fact that the seizure of unconsciousness lasted for so long a time, but was accompanied or followed by so slight amount of hemiplegia; and, in addition, it illustrated the difficulty which sometimes arises, in determining with positiveness the pathological explanation of the phenomena presented.

A colored man, æt. 33, who was temperate, and never had had syphilis, suffered severely from a general headache of a Friday night. On Saturday morning, while walking upon the street, he suddenly lost consciousness, fell, was picked up and carried to the station-house, and from thence to the hospital, which he reached some time in the afternoon. It was a supposed case of alcoholism, and the patient accordingly was placed in a cell, where, after several hours, he became conscious. The patient was not aware of the fact, when he came to consciousness, that he had a certain amount of paralysis, for to the observer even it was scarcely perceptible in the walk, nor was there anything apparent in his face when the muscles were at rest, but when they were thrown into unusual action it was very evident that the angle of the mouth upon the right side was somewhat lower than upon the opposite side, and in addition, there was a marked diminution of power in the right hand and arm, although not great. There was also marked loss of sensation over the right side of the face, but the orbicularis palpebrarum was affected to only a very trifling extent. There was no aphasia. This man remained in a state of *complete* unconsciousness about sixteen hours, not having the least recollection of anything that transpired after he fell upon the street on Saturday morning. What pathological condition was probably present? There was no cardiac disease, nor had the patient ever had articular rheumatism. He had always been a healthy man. It was believed that there had been a slight extravasation of blood into the brain substance, but the case illustrated well the difficulty of making a positive diagnosis in certain instances.

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The Editor of the Philadelphia Medical Times. —With the change of the *Medical Times* from a weekly to a bi-weekly the impersonal character of its editorship disappears, and the name of Horatio C. Wood, Jr., is given.

Reports of Societies.

NEW YORK COUNTY MEDICAL SOCIETY.

Adjourned Meeting, October 12th, 1875.

Dr. Thomas Addis Emmet, Vice-President, in the Chair.

ON THE GENESIS OF AN EPIDEMIC OF PUERPERAL FEVER.

The report made by Prof. W. T. Lusk was based upon an epidemic of this fever which made its appearance in the lying-in ward at Bellevue Hospital in the earlier months of the year 1874, and the object in view was future guidance and warning which might be obtained from a careful tracing, as far as possible, of its origin, progress, and growth. Hospitalism was not regarded as a distinct entity which can at once be recognized and identified, but a knowledge of the workings of the agent must come from an acquaintance with all the elements which may possibly generate its noxious influence. To this end a careful record of the history of every case had been made, noting the development of the slightest symptoms, the condition of the patient mentally and physically, both before and after confinement, the transfer to other wards, the measures adopted to insure cleanliness, etc., etc.

The mental condition was noticeable in a few cases, and, doubtless, had very much to do with the unfavorable termination. Some of these were the mothers who gave birth to illegitimate children, and suffered severe mental depression on that account, while others were thrown into a fearful degree of mental emotion, by the upbraidings of relatives, etc. A certain number of cases terminated fatally, in which the fatal issue was easily traced to well-known causes, such as spontaneous rupture of the uterus, decomposition of placenta and child, rupture of abscess into peritoneal cavity, etc.

Many patients were removed from the puerperal to the medical wards, with the hope that the epidemic might be checked in that way; but from a careful survey of the whole field it was found that this change did no good, and then the confinement ward was closed entirely, and another ward having an excellent reputation was placed at the disposal of the obstetricians. The confinement ward remained closed about two months; was subjected to free ventilation and cleaning, and then reopened, but the sequel proved that the epidemic had not been arrested. During the time that the ward was closed and another occupied, several fatal cases occurred, but the proportions of the epidemic were considerably reduced.

A change of physicians was next made, and the sequel proved that that wrought no particular change in the results obtained in the service, for the occurrence and fatal termination of the disease were as frequent among the patients as before the change was made.

It began to be evident that there was a transmission of the disease from patient to patient, mainly through the agency of nurses; and now the physicians on duty, Drs. Perry and Murray, assumed almost entire charge of the patients, administered the medicines, changed the beds and bedding, and cleansed the genitals of the recently confined women themselves. It was found necessary to do this, for the reason that the nurses would syringe patients having fœtid discharges, and perhaps within two minutes be cleansing the genitals of a newly confined woman, and that without exercising a degree of precaution worthy of the name. These physicians, therefore, assumed these duties themselves to a very great degree. They carefully washed their hands in carbolized water before passing from one patient to another; never used about a patient any article which had been previously used, if it could possibly be avoided; insisted that each patient should have her own syringe and catheter, thereby securing, under the circumstances, the most perfect isolation possible of one patient from another. In this way, be it to their credit, very much was done towards reducing the mortality; but unfortunately the provisions of the hospital were inadequate, and the proper amount of material, such as cloths, napkins, sheets, etc., etc., were not at the disposal of the attendants. These were some of the items to be taken into consideration in making up an estimate of the genesis of the epidemic or the condition of the hospital.

The evidence of direct communication from midwives to patient was so patent, that an increase of nurse force was asked for, but the request was refused by the Commissioners of Charities and Correction. An attempt was then made to obtain aid from other sources, but the demoralization which took place among the nurses already present gave rise to a fearful increase in the epidemic, which exposed most completely a source of transmission that had been in continued existence throughout the course. Two nurses, and only two, were finally added to the force, and the results were marked and beneficial. The obstetrical service, however, was finally broken up, and transferred to Charity Hospital on Blackwell's Island. From the history of the epidemic the professor drew two conclusions.

First—Puerperal diseases may be engendered by atmosphere alone. The nature of the poison is conjectural, but removal of patients to an unaffected locality changes the character of the disease, and the closure of the infected ward for three or four weeks usually restores it to a healthy condition.

Second—In distinction from the above, there is a form of puerperal fever poison with immensely contagious properties, not primarily derived from a miasm, but capable of generating a most fatal disease.

There are two things which may be noted. First, Prof. Lusk, during the entire epidemic, was in the wards two or three hours daily, and yet not a single case in his private practice developed an unfavorable symptom.

Second—Three months later the obstetrical wards of the hospital were occupied by the surgical service, under the charge of Prof. James R. Wood, and in it were treated several cases after capital operations, such as amputations, exsections, etc., and not a single case of pyæmia or septicæmia occurred.

Prof. Isaac E. Taylor regarded the report made by Prof. Lusk as clear and sufficient to place the entire matter, which had caused considerable comment, in its proper position before all.

Dr. Thomas F. Cock regarded it as a horrible outrage that such a report must be made. His acquaintance with Bellevue Hospital extended back as far as 1840, when he was engaged there in a severe epidemic of puerperal fever. At that time the city authorities learned a lesson, at least, which they seemed not to have done at all in the present instance, for a presentiment of the case was then made to the grand jury, and they stopped the entrance of all puerperal cases into the hospital, and that stopped the epidemic. The patients who were already there were transferred to other quarters, and the disease pursued them, and they fell victims to it there. The physicians also, who came to see the cases, transferred the disease to their patients. In 1849 or '50 a similar epidemic broke out and the same facts concerning it were noted. Why were not the commissioners advised in the present instance, and admission of lying-in women to the hospital checked, and not go on admitting them, and leave them to be sacrificed, as they had been? It is said that it was evident that disease was transferred from one patient to another, and yet they continued to admit women for all these months, and thus allow the disease to go on. Why was it so?

Prof. Gillette remarked that the record presented by Prof. Lusk was in striking accord with his experience in the Bellevue Hospital twelve years ago. There seems to have been the same causes, the same methods of treatment, the same precautionary measures then as now, nevertheless puerperal fever was an almost constant attendant upon the lying-in service of the hospital. Since that time he had also observed the progress of epidemics of puerperal fever in the same institution. Why they occurred he could only surmise. That the attendants have been hampered, all know too well. With regard to the patients who were transferred to Blackwell's Island, when it was decided to close the obstetrical wards in Bellevue Hospital, he remarked that the commissioners sent him word to make preparations to receive them into Charity Hospital. He objected to placing them in the wards with other women, and insisted that they should be placed in two pavilions upon the ground, one of which had been occupied as a small-pox and fever pavilion, but had been disinfected and properly cleansed. An objection was raised on the ground that such a proceeding would subject the women to the influence of the small-pox and fever poisons. He, however, urged the women into the pavilion, and twenty-three were received direct from Bellevue Hospital. The night of the day they were received one died, and the night of the second day the second patient died. Up to that time nothing had been done in the way of precautionary measures, but at once the clothing was all removed, the hair cropped, and even the hairpins taken away, and the patients were washed in a moderately strong solution of carbolic acid, and this bathing was continued for some days. Quinine was administered freely, and from that time no more puerperal fever manifested itself among these women. Another point was, that during three years previous to the reception of these women they had at Charity Hospital 575 confinements and only eight deaths from puerperal fever. They had come to look upon the disease, so far as its prevention and spread is concerned, as a very tractable one under the rules. For example, when a case is developed the patient is sent away at once, and neither physician nor attendants are allowed to appear in the other wards, nor are the house physicians and surgeons allowed to visit the infected part of the hospital. All are excluded, therefore, except the chief of staff, the visiting and the house physician, who has immediate charge of the patients. In that way they had succeeded almost invariably in arresting the spread of the disease by policing the lying-in wards. There had also been exercised the most scrupulous care with regard to change of bed and bedding, not allowing either to be used by the second patient until thoroughly disinfected, and the same care was also taken with regard to the use of catheters, syringes, etc., etc. The remaining twenty-one women who were transferred had a higher temperature and pulse than the regular patients in the hospital, showing that the septic germs were there and ready to be developed under favoring circumstances.

Dr. Mary Putnam-Jacobi regarded the reference which Prof. Lusk had made to depressing moral emotions as the evident cause of the disease in certain cases, when the hygienic condition of the hospital had not been sufficient to develop it, as a point of exceeding interest with regard to the relation between the pathogeny of this disease and several others. In a goodly number of cases one of the first symptoms manifested under the influence of the puerperal poison is an inability of the uterus to contract properly after labor. This is essentially a nervous phenomenon, and doubtless depends upon paralysis of the nervous centre, which presides over the contractions of that organ. This nervous centre has been demonstrated to be in the medulla, consequently stands in very close relation with the nervous centres, which are affected by depressing moral emotions. When, therefore, the blood has become poisoned by the puerperal miasm, that nervous centre will be in a condition analogous to a nerve centre, first poisoned by morphine and afterwards brought under the influence of chloroform, which, as is well known, permits the anæsthetic to exert its peculiar influence much more rapidly than it would do otherwise. If now a patient has had this nervous centre nearly exhausted by moral emotions, and then is subjected to the processes of parturition, the proper contraction of the uterus is less likely to occur, and in this way an open source for the development of the disease may be furnished. Again, whenever the patients presented the alarming condition spoken of *immediately* after labor, it is evident that they must have been poisoned by something else besides the fluids from the uterus, inasmuch as these do not at that time exist. She was of the opinion that wherever such symptoms occurred before the elapse of twenty-four hours after labor, the same thing must be said, for the discharges become poisonous only after the lapse of about that length of time. We have no source, therefore, in this class of cases, from whence the poison can be derived except the atmosphere, and this is the probable reason why patients who have been admitted to the hospital for several weeks before confinement are much more liable to fall victims to puerperal diseases than when admitted only a short time before confinement.

Prof. Fordyce Barker made some remarks, which may be found *in extenso* in the present number of the Record.

[Prof. Lusk's paper can be found in full in the *American Journal of Obstetrics*.

The Journal d'Hygiène, Climatologie, Eaux Minérales, Stations Hivernales et Maratimes, Epidémiologie, is the title of a new semi-monthly published in Paris. It is the Bulletin of the Conseils d'Hygiène et de Salubrité, and is published by Dr. Prosper de Pietra Santa, Inspector of Mineral Waters of the Department of the Seine. The first number appeared on the 1st of October.

Bequest to Jefferson College.—The late John E. Spencer, M.D., of Morristown, New Jersey, by his will, bequeathed to the Jefferson College the sum of one thousand dollars, to be added to the building of the college; which has been promptly paid to the treasurer by Miss Florence Spencer, executrix. Dr. Spencer was a graduate of Jefferson College, in the class of 1870.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, October 1st, 1875.

DR. E. R. PEASLEE, President, in the Chair.

THE paper for the evening, On Inunction in Health and Disease, was read by Dr. A. C. Angell, and can be found in full on page 723.

Discussion followed, which was participated in by Drs. J. C. Peters, Rogers, McIlvaine, and the President. There seemed to be something of a diversity of opinion as to whether oils can be made to contribute to nutrition by being rubbed upon the skin. Dr. Rogers was quite certain that very great advantage could be derived from their use in this manner, and especially from the use of cod-liver oil in certain cases.

DR. MCILVAINE, on the contrary, urged that it had been conclusively proved by Bernard that sustaining the system by inunctions or by material thrown into the rectum was a mere assumption; and also that the anointings of olden time were not for the healing of the sick, in the sense that they exerted any remedial influence.

DR. PEASLEE remarked that the question should be considered in the light of maintaining or restoring the normal relation which exists between the sebaceous and the perspiratory glands, for it is well known that the latter cannot perform their function properly unless the former are in their normal condition. Hence, when the skin becomes dry and rough, the sebaceous glands have ceased to be as active as in health, or have ceased to secrete altogether, and the result is that the sweat glands fail to act; therefore, if by means of inunctions the normal elasticity and pliability of the skin can be restored, a very great advantage has been gained, for by this means the escape of effete material from the system, which is constantly going on when the skin is in a healthy condition, is restored. It matters not if the openings of the sebaceous follicles do become closed with the substance employed for inunction, so long as it subserves the same purpose of the normal secretion, or if it stimulates them to the performance of their function. But he could see no reason why life might not be sustained by oils introduced into the system through the skin; and certainly it was a fact well known, that very many patients have been sustained for a long time by nutritious injections into the rectum.

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ERGOT *vs.* HIP-BATHS IN TREATMENT OF UTERINE FIBROIDS.—Dr. R. B. Gleason, of Elmira, N. Y., writes: The recent eulogies on the effects of ergot in the treatment of uterine tumors tempts me to offer the profession a point on the subject from my own practice.

Before the days of the use of ergot in such cases, I, of course, had the usual number of cases of menorrhagia dependent on fibroids of the uterus, often non-descended.

A tumor within the uterus is almost the same thing as an intra-mural; a tumor pendent in the vagina is virtually a tumor safely removed. The best means I have found for converting one into the other is cool or cold hip-baths, given daily, with friction over the abdomen. The flow is checked, the back strengthened, and—the great point—uterine contraction is induced and easily regulated, and the tumor expelled.

The digestive impairment of ergot is thus avoided, and the strength of the patient increased instead of impaired. Let ergot be reserved for cases where it has no rival, and where the harm it does is quite outweighed by the good it accomplishes.

Medical Items and News.

TREATMENT OF NÆVUS.—Dr. Emil Steiger, of Prairie du Chien, says:

"I herewith report to you the treatment and cure of a case of nævus, for publication in your MEDICAL RECORD, if you consider it of interest to the profession.

"M. Z., æt. 16, came to my office on June 16th, for the treatment of a congenital nævus on her leg. On the outside of the leg was a strawberry tumor, nearly round, of at least one and a half inches diameter, and one-third to one-half inch papillary elevation. Patient complained that for over a year she suffered great pain, that the tumor was increasing, and that the least irritation produced bleeding. Considering the extremely vascular state of the nævus, and the great success I have lately obtained in the treatment of carbuncles from hypodermic injections of carbolic acid, I commenced the following treatment:—I made subcutaneous injections of equal parts of fluid extract ergotæ and acid. carbol.—about fifteen minims to each injection, and one injection from four different points of the periphery, the needle entering about half an inch diagonally towards the centre of the nævus. The surface was painted over with pure carbol. acid, and the whole dressed with simple cerate. At interims of a week or ten days, four times had I made the injections in the described manner, when harvest-time prevented patient from coming to the city for four weeks. When I saw patient again on August 10th, she told me that a short time ago "the whole thing" (as she expressed herself) fell out. Upon examination I found a small cavity with a healthy, raw surface. I ordered it to be dressed with ungt. plumbi iodidi ℥ i., acid. carbol. ʒ ss. At present the leg has nearly healed up, leaving only a faint cicatrix, the patient not suffering the least inconvenience from pain, etc., whatever."

TREATMENT OF CHRONIC CYSTITIS.—In the course of some remarks made before the Kings Co. Medical Society, by Dr. J. W. S. Gouley, of New York, on the treatment of chronic cystitis, the doctor said that the disease is usually the consequence of some pre-existing trouble—such as may cause certain alterations of the urinary secretion—such as a foreign body in the bladder, a morbid growth, or an obstruction in the urethra. He had seen cases of chronic cystitis in middle-aged men, which could be traced to no other cause than persistent lithuria; the patients having for months, and even for years before, passed, almost daily, large quantities of crystals or agglomerations of crystals of uric acid, with great frequency of urination, vesical tenesmus, and "burning, cutting" pain along the urethral canal, the urine containing, besides, a variable quantity of pus, and sometimes of blood. This, he said, occurs most frequently among dyspeptics, and such cases of cystitis might properly be called diathetic. When this condition is discovered early, the consequent troubles can generally be averted by properly directed treatment. He recommended alteratives, laxatives, mineral acids as tonics, followed in a few days by mild alkaline waters, and then the Friedrichshalle, or the Hungarian bitter water, proper hygienic management, etc., and related illustrative cases.

In cervical cystitis with inordinate irritability he strongly advocated instillations of nitrate of silver solution, after the plan of Doctor Félix Guyon, of Paris.

The doctor spoke of the cystitis which occurs from excessive use of opium, and advised caution in the administration of this drug to patients already suffering from cystitis.

He also referred to a cervical cystitis, lasting for months, with frequent discharges of slightly purulent urine, often caused by the passage of large sounds in the treatment of urethral strictures. In these cases there is pain after urination, similar to that which occurs in anal fissure after defecation. He asked whether these were not probably instances of pre-existing contracture of the vesical neck, whose mucous membrane has been actually fissured by the distending sound? Should this supposition be correct, would it not be proper to subject the more obstinate cases to the same sort of treatment as are cases of anal fissure? Anal fisure is frequently known to yield very speedily to divulsion of the sphincter, and it is more than probable that fissure of the vesical neck will, in many instances, yield to divulsion of the vesical neck. Divulsion of the urethro-vesical orifice can be made, among other means, by introducing *per urethram* a soft rubber tube capable of being distended, by water or air, to a given size and at a particular point. He has never resorted to internal incision for contracture of the vesical neck, as advised by the French. In some cases of chronic cystitis, from narrow intractable strictures, he has established free temporary drainage of the bladder, by first making external perineal urethrotomy, and then dilating the neck of the bladder by introducing the index finger. This has usually given excellent results. In only one case of cystitis from stricture has he made free incision of the neck of the bladder, and this patient died.

In far advanced cases of cystitis, where the whole organ is implicated, and where there is concentric hypertrophy with diminished capacity, but where there is no reason to think that the kidneys are hopelessly involved, he advocated cystotomy, such as that recommended by Dr. Parker, of New York; but with the understanding that the cut shall be kept permanently open in order that the bladder may be constantly drained. He thought there could be no objection to this on the score of the inconvenience it might give the patient, since, in most cases that are likely to require the operation, no urine can be retained, and the patient may already be wearing a urinal to keep his garments dry—the bladder having ceased to act as a reservoir for the urine. The doctor stated that he had once succeeded in establishing such permanent drainage of the bladder. The operation was done three years ago, and the patient, who was before very feeble and emaciated, is now well and stout, and the only inconvenience he suffers is getting wet when his urinal is out of order.

He thought that the treatment of chronic cystitis should be in accord with the peculiarities of each case, and with the degree and cause of the disease, and that much judgment and experience are necessary to determine what should be done. While most cases are manageable by irrigations, etc., some are at first greatly damaged by this treatment, and require weeks of preparation by rest, diluents, balsamics, tonics, ice in the rectum, fomentations, hip-baths, rectal suppositories of belladonna and opium, etc. In the majority of instances the treatment should be constitutional as well as topical. The doctor enumerated the various causes of cystitis, and gave a brief outline of the treatment appropriate to each form.

In conclusion, he called attention to the importance of early treatment of the cystitis which so frequently follows injury or disease of the spinal cord, and said that for the past ten years it has been his practice, in injuries of the back, followed by paraplegia and paralysis of the bladder, not only to draw off the stagnant urine, but from the very first to frequently irrigate the bladder, twice and even thrice daily. This always gives ease and comfort to the patient, and often has much to do with the favorable termination of the case.

Epidemic of Measles at Fiji.—The *British Medical Journal* gives the following account of the late epidemic of measles in the Fiji Islands, as described by an eye-witness in the *Sydney Morning Herald*:

"The death-rate is not yet made up, but the probability is that 40,000 Fijians died during the four-months' plague. The native population of Fiji is now about one-third only of what it was when I landed here twenty-five years ago. Very few died of the measles, the majority dying of subsequent disease in the form of dysentery, congestion of the lungs, etc. Want of nourishment, or starvation, carried off thousands. All work was suspended for some months. You could pass through whole towns without meeting any one in the streets, which were even completely covered with grass. Entering a house you would find men, women and children, all lying down indiscriminately, some just attacked, some still in agony, and others dying. Some who were strong enough attempted suicide, and not always unsuccessfully. As the scourge became more permanent, four or five were buried together in one grave, and generally without religious service. In some cases the dead were buried in the earthen floors of the houses; in others, just outside the house. The burials were hurried, and the probability is that some were buried alive. In many instances the husband, wife and children all died. In one village all the women died, and in another all the men.

Sore Nipples.—The following letter was addressed to Dr. Julius Fehr, who not long since wrote an article for The Record, on sore nipples:—

Dear Sir:—I have seen an extract from your article, in the *British Medical Journal*, of September 18, 1875, from the N. Y. Medical Record, on "Sore Nipples." I have had a large obstetric practice as an English physician, and have *never* had a bad case of sore nipples. For many years, when the nipples became slightly sore, I at once applied *zinc shields;* but of late years, instead of allowing the zinc to combine with the lactic acid of the milk, I have applied a preparation of sulphate of zinc and lactic acid (in fact lactate of zinc) and glycerine with starch, between the times of suckling. I think if you try this you will find it unfailing, and not only a "prophylactic," but a *specific* in the true sense of the term.

Yours very truly,
Alfred Fleischmann,
Late Asst. Phys. Accoucheur, King's Coll., London.

A New Process for Staining Tissue.—Another process, introduced by the well-known histologist, M. Cornil, consists in the employment of "violet methylamine." Its merit is said to be that its constituents separate into red and blue elements, which have different affinities for the tissues acted upon, and therefore fits it especially well for organs in a state of lardaceous degeneration, the lardaceous part taking a red tint, the normal a blue. M. Cornil has by this process determined that the lardaceous change takes place first in the interior of the small arteries. One objection to the method will prevent its being of very great practical value, that is, the disappearance of the coloration in specimens mounted in Canada balsam, glycerine, etc.

A Junk Shop in a Horse's Intestine.—At a post-mortem examination made of a horse which had died from an obstruction in the bowels, the following articles were discovered in the colon: Eleven hundred nails, ranging from about half to an inch and a half in length, a quantity of small screws, buttons, curtain hooks and other miscellaneous items of a hardly less digestible material. These foreign ingredients were smooth and thin by the friction to which they had been subjected, a proof of the long time they had been in the beast's intestines.

Remarkable Persistence of Cardiac Action after Death.—A remarkable case is reported by R. Stewart, M.D., in the *Medical Times and Gazette* of Sept. 25th ult. On July 4th, 1872, Dr. Stewart attended a gentleman about seventy-two years old, who complained of fatigue, heat, and pain in his head. After prescribing for these symptoms the doctor left, but was sent for again at eight o'clock, and found his patient apparently dead. The jaw had fallen, the eyes were fixed, the body was cool, and the head hot, but, on applying the ear to the chest, the heart was distinctly heard beating twenty-seven times a minute. Artificial respiration was practiced, and air and ammonia blown into the lungs. Under this treatment the heart-beats became more frequent and forcible, but no respiratory effort could be produced.

At ten o'clock the heart was still beating, and the attempt to re-establish respiration so stimulated the heart that a radial pulse became perceptible. The body gradually became cold and rigid, and the cardiac pulsations more feeble. Between five and six o'clock of July 5th the throbbing of the heart was very feeble and slow, and could not be accelerated, and a little after eight o'clock there were signs of decomposition by appearance, odor, and lessening rigidity. The patient was evidently dead then; but, as Dr. Stewart well asks, what was he before?

A Colony of Lunatics.—At Gheel, a village in Belgium, there is a colony of lunatics under the care of Dr. Bulckens, and during the recent Medical Congress at Brussels it was visited by about forty members, who were greatly interested in what they saw and heard of the condition of these unfortunate people. The lunatics, who number about thirteen hundred of both sexes, are not kept in an asylum, but board and lodge with the inhabitants. The patients come from all countries, and belong to all ranks of society, being accommodated according to their means. The more dangerous lunatics are placed in outlying isolated houses. The inhabitants are all more or less engaged in the surveillance of those who are quartered upon them. There is a depôt, asylum, and hospital, to which cases of violence and dangerous illness are sent. It has been suggested that the system would work well elsewhere, and it would be interesting to learn whether this constant association with the demented tends to induce any form of mental deterioration among the villagers of Gheel.

Disease among Pigs in Ireland.—The *Veterinarian*, commenting on the fatal malady which has broken out among the pigs in the south of Ireland, especially the district around Waterford, inclines to the opinion that the pigs are suffering from typhoid or enteric fever. This disease is by no means uncommon in Ireland, and when once it has gained a footing in a district, is sure to spread and assume a fatal character for want of all sanitary regulations on the part of the owners of the animals. Typhoid fever in pigs, which has long been known to be contagious, is now also proved to be infectious in the ordinary acceptation of the term.

Medical Society of County of New York—Annual Election.—At the Annual Meeting of the Medical Society of the County of New York, held October 25th, 1875, it was ordered that certificates of membership be granted to the following gentlemen: Drs. E. M. Stein, W. B. Hull, C. J. Dumond, T. H. Burchard and W. M. Carpenter.

Upon motion made by Dr. Gurdon Buck, and seconded by Dr. Austin Flint, Sr., a committee consisting of three members was provided for, which, together with the President of the Society, shall confer with delegates from Philadelphia in reference to matters pertaining to the forthcoming Medical Congress to be held in that city in 1876.

Upon motion of Dr. E. Eliot, the Comitia Minora was empowered to select such committee.

The annual election of officers resulted as follows:

For *President*, Dr. H. B. Sands.

For *Vice-President*, Dr. Thomas Addis Emmet.

For *Recording Secretary*, Dr. Alfred E. M. Purdy.

For *Corresponding Secretary*, Dr. F. A. Castle.

For *Treasurer*, Dr. H. P. Farnham.

For *Censors*, Drs. H. T. Hanks, T. T. Sabine, J. E. Janvrin, E. J. Janeway, C. W. Packard.

For *Delegate* to State Medical Society, Dr. T. E. Satterthwaite.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Oct. 23d, 1875, to Oct. 30th, 1875.

Edwards, L. A., Surgeon.—Relieved from duty in the Military Division of the Atlantic, to proceed to Philadelphia, Pa., and, upon arrival, report by letter to the Surgeon-General. S. O. 208, A. G. O., October 15, 1875.

Janeway, J. H., Assistant-Surgeon.—Assigned to duty at St. Augustine, Fla. S. O. 153, Department of the South, October 15, 1875.

Heizmann, C. L., Assistant-Surgeon.—Extension of leave of absence further extended fifteen days. S. O. 213, A. G. O., October 21, 1875.

Hoff, J. V. R., Assistant-Surgeon.—When relieved by Assistant-Surgeon Jaquett, assigned to duty at Fort McPherson, Nebraska. S. O. 113, Department of the Platte, October 18, 1875.

NAVY.

October 20.

Kidder, Jerome H., Passed Assistant Surgeon.—Ordered to special duty connected with the Transit of Venus Commission.

October 21.

Hugg, Joseph, Surgeon.—Detached from the *Canandaigua*, and placed on waiting orders.

Corndon, C. G., Assistant Surgeon.—Detached from the *Canandaigua*, and placed on waiting orders.

Weekly Bulletin of the Meetings of Medical Societies.

Monday, Nov. 1.—N. Y. Neurological Soc.

Thursday, Nov. 4.—N. Y. Academy of Medicine, 12 West 31st st.

Friday, Nov. 5.—N. Y. Medical Library and Journal Assoc., 107 E. 28th st.

Saturday, Nov. 6.—N. Y. Physician's Mutual Aid Assoc. Annual Meeting and Election.

Original Lecture.

ON THE TREATMENT OF TYPHOID FEVER.

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LECTURE III.

COMPLICATIONS.

GENTLEMEN:—We will conclude now with the treatment of the complications and accidents which may arise in the course of a typhoid fever, and which may either cut short the case by death, or else prolong the illness to an indefinite period beyond the normal limits of the complaint. The first and commonest of these is a WEAKENING OF THE HEART, due mainly to fatty degeneration of its walls induced by, and ordinarily proportioned in its extent to, the degree of the pyrexia. So debilitated may the heart become, that your patient may die suddenly from syncope upon rising too quickly in bed, or on his feet, though then fairly convalescent from the fever. But it is generally from visceral disorders, induced in the later periods of the fever by this state of the heart, that a watchful attention on your part for the symptoms of cardiac feebleness becomes so necessary, because even in the worst cases timely measures may avert its chief perils. The danger from this source is to be apprehended most in those patients who had weak or damaged hearts before they contracted the fever. Thus the prognosis of typhoid is much more grave in corpulent, short-winded people than in the lean and muscular, and in those whose long-continued or free use of alcohol has produced the fatty heart of drinkers. I saw also, lately, a young lady, who had been suffering for some years from valvular disease, succumb rapidly to dilatation of her hypertrophied heart occurring during a comparatively slight attack of pericarditis, following upon a typhoid fever from which she had apparently so far recovered as to be able to take a long railroad ride, but which very probably was the immediate cause of fatally aggravating her cardiac lesions at a time when the fever had specially disposed the ventricular walls to dilatation. The indications of cardiac weakness are to be watched for, first, by a careful attention to the action of the heart itself; and secondly, to the state of the pulse. The character of the heart-beat is of greater value than the state of the pulse, for the latter varies to a remarkable degree in typhoid, so as to be very puzzling sometimes to inexperienced observers; but you can scarcely fail to obtain trustworthy signs of impending danger if you practise auscultation faithfully. In the first stages of the fever, and in many cases throughout its course, till the beginning of the defervescence, the frequency of the pulse is strangely disproportioned to the height of the thermometric range. I have repeatedly known it to fall short of 90 for days together, while the thermometer stood at 104° or higher, and during the first week the diagnosis of this fever has often been missed because the pulse remained slow and regular. During convalescence, however, you may have the frequency suddenly increase by twenty or even thirty beats, from changes of position, slight errors of diet, etc., while the thermometer may be even below its norm. A *persistently* rapid pulse, nevertheless, is not a favorable symptom, for it indicates a state of cardiac weakness, which is the more to be apprehended if the pulse be weak and compressible as well, and worse than all, if it be dicrotic. On the other hand, cardiac weakness is certainly diagnosed whenever the apex beat diminishes in force, and the first sound of the heart grows faint or muffled. In some these signs are present before acceleration of the pulse is developed, but whenever noted you should not delay your recourse to cardiac stimulants. It was upon this indication that Graves based his excellent rule for the administration of alcohol in fevers, and it is desirable to emphasize this truth, so as to prevent the abuse of stimulants, which prevailed so extensively of late, chiefly from the extreme advocacy of alcohol by the late Dr. Todd, of London. It should be borne in mind that alcohol stimulates best when first administered, and progressively loses its power the longer, as well as the more, it is taken. If we begin with free doses in the first week, we certainly do *not* forestall by it the prostration of the third week, but instead, reap the evil of not securing the benefit we would have from it if it had been withheld until actually needed. If we dreaded, for example, the loss of blood from a proposed surgical operation, still we would scarcely think of beginning the stimulation of the patient a week before he was to be operated upon, and yet some such idea must have influenced those authors who spoke in favor of early stimulation in fevers. When cardiac feebleness, however, begins, we should commence with our alcoholic doses, and aim to make them tell upon this one condition, and on no other. I have small faith in either the apyretic or the nutritive value of alcohol in fever, not that I deny these properties to this agent, but because they are of such minor importance in comparison with its undoubted efficacy in stimulating the heart, that our administration of it should be regulated by the best means of obtaining the latter result alone. Hence I do not recommend the employment of wine in any form, but rather the administration of strong spirits like brandy or whiskey. There is no doubt, too, that the spirit should be given only with food—in this case milk—if we wish to prolong its sustaining effect; not necessarily in the milk, but if so preferred by the patient, in water, just after the milk is taken. The dose also should be one which will surely increase the power of the cardiac systole, which of course will vary either with different individuals, or at different times with the same individual; but what is meant by this recommendation is, that a few free doses are better, as a rule, than a great many small ones. Besides alcohol we have a very potent cardiac stimulant in sulphuric ether, and which, moreover, is such a near relative to alcohol that in this condition it is best administered in alliance with it, so to speak. An ounce of brandy at one time, and then at the next dose half an ounce, with a drachm of Hoffman's anodyne, is far more likely to sustain an enfeebled heart than three ounces of brandy divided up into six doses. Ammonia is another cardiac stimulant, but I would advise your reserving it for the next complication we are going to speak of. Occasionally in the course of this fever, as well as in typhus, scarlatina, or measles, a dangerous collapse may unexpectedly occur from a sudden PARALYSIS OF THE HEART. This organ begins to beat very feebly, and seems able to propel the blood only into the neighboring large viscera, so that the lungs become greatly congested and severe dyspnœa develops, indicated by rapid and very shallow breathing. The liver and kidneys also become engorged, while the whole surface turns cold, white, and shrunken, and the muscles of the extremities, as in the calves of the legs and flexors of the forearm, become cramped from the arterial blood not reaching them. The patients also complain of a dreadful sense of vacancy or sinking, referred to the pit of the stomach; and though the skin is very cold, yet they feel as if they were burning inwardly, and beg for ice or cold drinks on account of the intense congestion of the stomach and other parts connected with the portal circulation. Meantime the anæmia of the surface causes the eruption to fade to such a degree as to fill the nurses or friends with the alarming notion that the scarlatina or measles has "struck in." These emergencies require prompt treatment, for your patient may either die in them outright or succumb afterwards to some visceral derangement, such as pneumonia, or, more commonly, renal suppression. The heart being the seat of the trouble, the first thing to do is to apply saucers or small plates dipped in hot water to the epigastrium. Dr. Wood, Sr., of Philadelphia, mentions applying a live coal to the pit of the stomach in a case of typhus, and after recovery the patient described its sensation as positively agreeable from the relief he experienced from the distressing feeling of vacancy there. The next thing to do is to give one or more hypodermic injections in this neighborhood of about forty minims of pure brandy. This is an exceedingly valuable measure in all conditions of cardiac collapse, and I have never seen any local irritation produced by it. The patient's friends will not wait for advice as to dry heat to the extremities, as well as sinapisms, friction, etc., and they are all useful; but if reaction is protracted you should first wrap the patient in a sheet, upon which a boiling infusion of a drachm of capsicum to the quart of water has been poured, and then over this a blanket; and lastly, if everything else fails, a hot bath not above 103°, continuing meantime hypodermics of brandy rather than by the mouth, nothing but pieces of ice being permitted to be swallowed. It is singular to note sometimes how temporary these cardiac prostrations are, for your patient, on coming out of them, may subsequently run quite a favorable course with his malady; but this remark applies much more to the eruptive fevers proper than to typhoid, where they are more prone to recur, owing to the longer continuance of the pyrexia.

PNEUMONIA in typhoid fever is not an uncommon complication. The first signs of its approach are a rise of temperature and increased frequency of the respirations, rarely cough or rusty sputa. The pneumonia, indeed, is generally preceded for some time by hypostatic congestion of the lungs, and this is a direct consequent upon weakness of the right side of the heart, and hence is the more to be expected in patients who have been troubled previously with chronic bronchitis or emphysema. The pneumonia, in the great majority of cases, is lobular, and not of the croupous lobar form, complicated by pulmonary œdema, and very rarely accompanied by much pain. It is now that you should have recourse to ammonia, and I recommend the carbonate in doses of ten grains every two hours, with the Hoffman's anodyne one drachm, and ten minims of tincture of camphor. The belladonna tincture in doses of ten to fifteen drops every three hours is a valuable cardiac stimulant in this condition. The cold bath should by no means be omitted, for it often clears the lung up remarkably of its congestion, from the relief it affords to the enfeebled heart. It is well also to stimulate the surface of the chest frequently by a liniment of ol. terebinth., aq. ammoniæ, āā ℥ i., lin. saponis ℥ ij. Owing to the pulmonary derangement which typhoid fever induces, it is always a risk to those who are inclined, either hereditarily or otherwise, to phthisis. It is therefore important in them to be rid early of all signs of congestion of the lungs, and hence you should persistently employ surface irritants to the chest with them as long as any evidence of respiratory feebleness remains during convalescence. Owing to the laws of nervo-vascular connection, which I have had frequent occasion to allude to in my lectures, between the cutaneous and the vaso-motor nerves of the arteries of deep-seated organs, we should not neglect stimulating the thoracic surface by every means in our power, and for this purpose I know of no measure so effective as free faradization, either for causing absorption of pericardial or pleuritic effusions, or for the removal of a pulmonary exudation. The electrodes should be armed with moistened sponges, and held about six inches apart, and moved slowly over the chest anteriorly and posteriorly until the surface becomes well reddened, which it usually does in fifteen minutes, with a current of not too rapid intermissions.

We have already alluded to the treatment, or rather to the prevention, of the commonest complication connected with the alimentary canal, namely, the DIARRHŒA. If the pepsin and bismuth do not, however, check a too great flux, I would recommend a prescription of mine, which I have long relied upon for the treatment of chronic diarrhœa, from whatever cause, viz.: terebinthinæ resin. ʒ iij., argenti nitratis grs. v., pulv. opii grs. v. M. Ft. pilul. lx. The one objection to these pills is the number of them that have to be taken, namely, three at a time three times a day; but I have scarcely ever failed to check a flux by them, no matter how long its former continuance. Dr. Wood speaks very highly of turpentine as calculated to promote the healing of the intestinal ulcerations, both in this complaint and in the diarrhœa of phthisis, and it is possible that the silver may be an adjuvant in that action. When the patient cannot take the pills, I substitute a third of a drachm of the oil of turpentine in mucilage, with ten minims of laudanum to each dose. During convalescence, your patient's temperature and pulse may rise, and all progress for the time be arrested by the formation of scybalous masses in the large intestine, which may even alarm you by occasioning small, loose movements, streaked with blood. There is not much danger of intestinal hemorrhage, however, from them; but the bowels should be at once relieved by large enemata of linseed oil, molasses, and warm water, helped by a pill of ext. belladonna, gr. ¼, with five grains of soap. I know of nothing better than the above-mentioned pill of turpentine and silver for the INTESTINAL HEMORRHAGE of typhoid, a complication, indeed, not nearly so likely to occur when pepsin and bismuth have been used as recommended, as when the intestinal contents have been allowed to remain for a long time in a fermented condition. Should tenderness on pressure at the cæcum, however, persist for a length of time, do not let the fear of debilitating your patient prevent you from applying two or three leeches over the affected part. This will do more towards preventing the worst danger you can fear in this region than anything else that I know of, and I never saw any one the worse for the insignificant loss of blood which it occasions. Of course, should symptoms of INTESTINAL PERFORATION surprise you, the course to be pursued then cannot be doubtful. Opium should be given in any dose that will produce seminarcotism, and not until the patient shows the signs of the action of this, our main-stay in peritonitis, should you cease to ply him with it. You are occasionally annoyed also with a trouble at the entrance of the alimentary canal, namely, with PAROTITIS, accompanied frequently with otitis. For the first, I would recommend the application of ung. stramonii ℥ ss., chloral hydrat. ʒ i., pulv. camphoræ ʒ ss., ol. gaultheriæ gtts. xii., seevral times a day, and poultices; for the OTITIS, a persevering douche of the ear with warm water, best applied from those convenient contrivances, Potter's hydrostatic bags.

MENINGITIS, fortunately, is a comparatively infrequent result of typhoid, for when it occurs it is of bad augury. It is generally preceded by wakefulness, with fits of screaming, or else a delirium which seems out of proportion with the amount of fever. The diagnosis becomes quite certain when there is rolling of the head and retraction; the pupils are also commonly very sluggish. The patients are very fond of cold affusions to the back of the head, even if they refuse to have an ice-bag applied. The most efficacious measures against this complication I would enumerate in the following order: First, blisters to the nape of the neck and occipital region; secondly, ergot; and lastly, iodide of potassium. The action of a large blister in some cases is followed by the most striking improvement in the cerebral symptoms ever witnessed. I once saw a patient who had been first comatose and then imbecile for six weeks, after an attack of ordinary cerebro spinal meningitis, so that she passed all her motions in bed, return permanently to complete consciousness as soon as the blister began to act. Ergot, to be of any use in this condition, should be administered in drachm doses of Squibb's fluid extract three times a day. I am not certain how much efficacy can be ascribed to the iodide, but if it does good the doses must not be less than a drachm a day. If there be much headache, the addition of Squibb's fluid ext. conium often relieves this greatly, and I am sure that this drug greatly promotes the action of the iodide in syphilitic cases. If the meningitis assumes an active form with increase of temperature and mania, the application of two or three leeches to the mastoid process relieves the patient, as evidently in this case as it always does in ordinary intercranial inflammations. There is one point, however, on which much stress ought to be laid, and that is, to prevent at any price WAKEFULNESS during the decline of the fever and during the convalescence. We include under this term also sleep troubled by dreams. The weakened brain must have rest, or it may be very long before it will recover its former state, and for this indication I will conclude by recommending the following prescription: ℞. Magendie's sol. ʒ i., acid. hydrocyanici, dil. gtts. xii., chloral hyd. ʒ ij., elix. simplicis ℥ i., aq. camphoræ ad ℥ iij. Dose: two or three teaspoonfuls at night.

Original Communications.

SOME POINTS IN OVARIOTOMY.

By E. P. BENNETT, M.D.,
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So much having been written on the subject of ovariotomy, and the operation having become so fully established as one of the legitimate operations of surgery, that at first thought it would appear as if the subject was almost or quite exhausted; still there are two points upon which there appears to be a difference amongst those who have distinguished themselves as ovariotomists. In regard to myself, living as I do in a country village, my experience is of course limited, yet it adds a mite to the general fund of experience on the subject. The two points to which I would call the attention of the profession, and especially new beginners, is, first, the position of the patient; and second, treatment of the pedicle. It is all-important that none of the cystic fluid should enter the abdominal cavity, and the position of the patient should be such as to avoid this accident; therefore, after making the external incision I place the patient on the edge of the table, and turn her over almost on her face, two good assistants holding her in this position. I then puncture the sac, and draw off the fluid, puncturing the sacs as they present themselves at the external opening, which they readily do by a little traction on the emptied main sac (the force of gravity aiding very materially in this respect), until each and every sac is evacuated, and drawn through the external incision (which is easily done if there are no adhesions), until you come to the pedicle, the securing of which is a proceeding of grave importance. As the different plans of treating the pedicle are familiar, I need only to say that I prefer the silk ligature, left hanging out at the bottom of the external incision. I have just discharged my seventh patient, in six of which I used this method; five recovered, and one case was so adherent that it could not be removed. To the clamp I have decided objections. In the first place the pedicle is often so short as to preclude its use; but if this objection does not, if the bowels become tympanitic from any cause, a painful tension is produced upon the pedicle, or if the patient vomits or coughs, a violent jerking upon the pedicle is the result, which is not only productive of pain, but may be attended with serious results, from the clamp tearing out, or its inducing inflammation. No such results can ensue with the ligature. Then again, in one instance which came to my knowledge, where one of our most eminent ovariotomists operated, the pedicle brought out and secured by the clamp prevented the healing of the external wound, and after weeks of suffering she died, apparently of no other cause. In my last operation, which was performed on the 16th of last month, I removed a multilocular tumor, weighing between sixty and seventy pounds. I tied the pedicle in three parts. In ten days the ligatures came away, and in just four weeks I called on my patient and found her in the kitchen, wiping up the dinner dishes. Her convalescence was unattended with a single unpleasant symptom. In my opinion the ligature will come to be the method of all others for securing the pedicle. The pedicle should be tied in two or three parts, the ligature not large, and drawn very tight, and in a few days it will separate, and the wound heal.

October 15, 1875.

AMERICAN GRADUATES IN GREAT BRITAIN.—A correspondent of *The British Medical Journal* states that out of two hundred and twenty-eight graduates of foreign schools practising in Great Britain, those who hold diplomas from the United States are as follows: New York, sixteen; Pennsylvania, ten; Massachusetts, one; Illinois, one; and Ohio, one.

ACCORDING to the *Academy*, there exists in St. Mark's Library, at Venice, a MS. in the handwriting of John Locke, consisting of notes on medical subjects, which, our contemporary observes, is the more curious if, as has been said, Locke was averse to allowing it to be known that he once intended to practise medicine.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

CHOREA.

Two cases of this disease were seen which presented some points of interest. One patient, a girl æt. 17, was suffering from her second attack; the first attack occurred when she was 11 years of age, was probably developed by overwork, and lasted for one month. Her father died of heart-disease, but her mother is still living and healthy. The treatment since admission had consisted in the use of a general tonic course, and to this arsenic had been added, but without causing any improvement. Strychnia was substituted, beginning with $\frac{1}{50}$th of a grain once a day, and was daily increased until a trifling amount of muscular rigidity was developed in some part of the body. Her improvement was manifest at once and the case went on to recovery.

The second case was a girl æt. 10 years, who had had an attack when she was 5 years of age, and the attacks have been repeated *yearly*, but have not as a rule lasted very long. Father healthy, and mother died of consumption. Her treatment was to consist of a generous diet and the use of strychnia. The choreic movements were very marked, and ether spray to the spine was to be added. There was *no history of rheumatism* in either case. In the latter, the disease was probably due to fright. At the end of three weeks the girl had nearly recovered.

A POINT IN DIAGNOSIS.

Special attention was drawn to the fact that this patient, who was suffering from an attack of ague, had a slight herpetic eruption over the nose and upon the upper lip. It was regarded as in the main correct in distinguishing remittent, intermittent, cerebro-spinal, and some other diseases from typhus and typhoid fevers, for in the latter such an eruption is only *very rarely* present.

ACUTE ARTICULAR RHEUMATISM—PLEURISY—PERICARDITIS.

It was a nice point in diagnosis in this case to determine whether the friction-sound which was present was pericardial or pleuritic. The history of the case was as follows: a male patient æt. 30, whose previous health had always been good, "sat upon a cold stone" three weeks ago; did not have a chill, but a few hours after was seized with a pain in the left hip-joint, which soon travelled to almost every joint in the body, and was accompanied by tenderness upon pressure, heat, and more or less of swelling. He had also suffered considerably from pain in the left side, just under the nipple, which was increased by a full inspiration, and obliged him to lie upon his back; but there was no cough or expectoration. Physical examination revealed a friction-sound over the præcordial space, which was synchronous with the heart-beat. Was this sound evidence of pericarditis, or was it pleuritic? The fact that it was synchronous with the heart-beat seemed to exclude pleurisy in this region; but the question then arose, may not this be a pleuritic friction-sound secondary to a pericarditis which had terminated in adhesion of the two pericardial surfaces, hence synchronous with cardiac movements? How was this question to be settled? The patient was then raised in bed, and examination made over the posterior portion of the chest, when it was found that, on the left side *below* a line corresponding to the lower border of the pericardium, there was absence of vocal fremitus, absence of respiratory murmur, flatness upon percussion, and an abundance of pleuritic friction-sounds; but that, *above* this line the lung moved freely, both posteriorly and anteriorly. This was regarded as safe evidence upon which to exclude pleurisy as being the cause of the friction-sound heard over the præcordial region. On the other hand, if it was a pericardial pleuritic friction-sound resembling a pericardial friction-sound because of adhesions which had been formed between the pleura and pericardium, it was believed to be a safe rule to say that there would be more or less adhesions between the chest-wall and the lung over its *entire surface*, for localized adhesions giving rise to such a result almost never occur.

The diagnosis was, that the man had pericarditis, and at the same time a pleurisy affecting the portion of pleura below the level of the pericardium. The next question which arose was whether the pericarditis depended upon the pleurisy, or was a complication depending immediately upon the rheumatic diathesis. The pleurisy was recognized about *eight* days before the pericarditis, and the pericarditis in the *third* week of the rheumatism, which made it probable that the pericardial inflammation was secondary to the pleurisy, for the reason that pericarditis, if it is to occur, is usually developed within the *first* week of the rheumatism while its manifestations are most vigorous.

The treatment for the cardiac complication consisted of rest in bed, continuance of the anti-rheumatic remedies, and soothing doses of opium.

ANÆMIA.

The case illustrated an important fact, which is occasionally met, but more commonly overlooked, namely, that anæmic persons are not always pale, taking that as the most common symptom of the condition, but they may have a *rosy complexion*. This fact led to the remark that the most reliable indication, one to which there are only a few exceptions, in determining whether anæmia is present or not, is the physical sign known as the VENOUS HUM. In the patient before us this sign was well developed.

COMPOUND FRACTURE—DELAYED UNION.

A male patient, æt. 55, had received a compound fracture of the leg eight weeks before, which had been treated by the use of the gypsum fenestrated splint, and the point illustrated by this case was the difficulty which sometimes exists in determining whether or not union has taken place.

When there has been no great attempt by nature at repair there is usually no especial difficulty in deciding the question; but when, as frequently happens, nature makes a marked effort, and there is considerable thickening of tissues, it is sometimes exceedingly difficult. In such cases, if the surgeon seizes the limb with his hands close to the seat of fracture, the wrinkling and motion in the skin which will be produced by his efforts will look very much as though motion is present at the seat of fracture; but if he grasps the ankle in one hand and the uppermost portion of the leg in the other, this liability to deception will be avoided. Daily exercise upon the limb was insisted upon, and the union had steadily strengthened.

SYME'S OPERATION—DISTRIBUTION OF THE INTERNAL CALCANEAN ARTERIES AS INFLUENCING THE LINE OF INCISION.

A male patient, about 40 years of age, had his foot crushed between a ferryboat and the dock, and gangrene was developed to an extent that demanded amputation, which was done after Mr. Syme's method. The internal calcanean branches, being distributed to the tissues covering the heel, should be avoided by the knife, if possible, or it is well to do so at least, if the greatest possible chance is to be given to this cushion to retain its vitality. Now a question arises concerning the origin of these branches. Dr. Wyeth, of Bellevue Hospital Medical College, has found that in three-fourths of the cases out of fifty dissections the origin of the internal calcanean branches was *below* the bifurcation of the posterior tibial into the external and internal plantar. Now if the incision in Mr. Syme's operation is made directly downwards, beginning at the front border of the malleolus, and not obliquely, as in the old method of performing the operation, you will have saved the internal calcanean branches which contribute so largely to the vitality of the heel.

FÆCAL ABSCESS—RARE RESULT.

A German woman, æt. 65, was admitted to the hospital July 10, 1875, and gave the following history. Two weeks previous to her admission, while descending the stairs of a stoop, she slipped, fell to the ground, and received quite a number of bruises about the head and face, but had no symptoms referable to the abdomen until about a week after the occurrence of the accident. When admitted she complained of pain over the abdomen, but at the same time endured pretty firm pressure without complaint, and the case was at first regarded as one of malingery. This fact shows how slightly marked the local symptoms were at the beginning. July 12, the patient complained of some pain, and was ordered castor oil, which worked moderately.

On July 19 it was noticed that in the hypogastric region, to the right of the median line, the abdominal walls were raised over a circumscribed space, were hard, and that the elevation gave a *tympanitic* percussion sound. The projecting part was painted with tr. iodine, and covered by a poultice.

July 21.—The swelling was still greater, was tender, gave a tympanitic note upon percussion, and at one point *gurgling* was obtained. The latter was regarded as a novel and unique sign. Abscess of the abdominal wall, with decomposition of its contents, was suspected, and a charcoal and yeast poultice applied.

July 23.—The patient's bowels moved in response to enemata of castor oil and oxgall.

On July 26 her abdomen was increased in size, but in other respects the patient remained in about the condition she had been in for a number of days; the bowels moving after the use of castor oil, and there was no vomiting. On July 27 a copious discharge from the bowels occurred. Over the tumor tympanitic resonance, splashing, and a musical sound were obtained. The patient was ordered castor oil, and morphine sufficient to allay pain.

July 28.—The integument over the tumor was very thin, and it was apparent that an opening might take place at any time. Upon close inspection a pinhole opening was then found, which had permitted the discharge of a very small drop of pus, and it was at once enlarged by making an incision an inch or more in length. A small amount of pus was discharged, gas escaped which had a distinct fæcal odor, and when the probe was withdrawn it brought out fæcal matter that could be easily recognized. Through August, as previously, the temperature did not at any time rise to any considerable height above the normal standard.

Sept. 1, the opening had narrowed so as to admit only one finger. On Sept. 25th the opening was entirely closed, and the bowels moved naturally every day. On Oct. 1st it was evident that gas still escaped, but no fæcal matter had been seen for a week or ten days.

A spontaneous external opening of an abscess of this character, and a spontaneous closure, is one of the rarest occurrences.

AMPUTATION AT THE KNEE-JOINT.

The incisions in the operation were first a linear one upon the anterior aspect of the limb, beginning a short distance above the condyles, and extending down over the joint, and from the lower extremity two lateral incisions, which nearly surrounded the limb. The flaps were then laid back, the ligaments cut, the joint laid open, and the leg dropped, and then with a catline separated by making a very *oblique* incision through the tissues not embraced in the lateral flaps. The advantage of this oblique stroke is that it leaves the main artery exposed in such a manner that it cannot retract to any great extent, but can be easily secured for the ligature. It was also urged that, when a limb is amputated in its contiguity, the synovial membrane and cartilages of incrustation should be left intact.

PNEUMONIA.

One point to which attention was directed was the treatment to be adopted if a patient is seen when the introductory chill is present, and there is a feeble heart action, as is usually the case in those who are in the use of alcoholic drinks. At once give such patients a drachm or half drachm of chloroform in brandy, or, if chloroform is objected to, co. spt. of æther in from two to four drachm doses. This was recommended upon the ground that something is required which shall stimulate the heart's action, and the above potion was regarded as the most powerful cardiac stimulant at our command.

RIGHT HEMIPLEGIA—PROGRESSIVE IMPROVEMENT IN THE APHASIA.

This patient, when admitted to the hospital, nearly three months ago, was completely paralyzed upon the right side, both as regards motion and sensation, and there was complete aphasia. There was no loss of consciousness when the attack came on. The interesting feature of the case was, that there had been a progressive improvement in the power of speech, and the patient could talk with considerable ease, although there was yet a good deal of hesitation. This progressive improvement was regarded as an exception to the general rule.

WARM WATER IN SURGERY.

In the treatment of contusions, etc., by immersing the parts involved in warm water, one great inconvenience has been the excessive swelling which usually occurs as the result of the immersion. This can be avoided by a very simple process, namely, freely oiling the parts before suspending them in the water.

In the case before us another fact was illustrated, namely, that the pus covering the surface of a wound becomes coagulated, and in that manner may obstruct a discharge which should continue. It is important therefore to remove the limb from the water occasionally, and syringe out the openings which may communicate with any sinuses or pockets from which pus has been discharging, for it will not be dissolved and removed by the water alone.

CHRONIC DIARRHŒA—CHRONIC DYSENTERY.

A point of distinction between these two diseases was illustrated in this case: and that is, that the most common time for a patient to be *disturbed* by a diarrhœa is at three or four o'clock in the *morning;* while dysentery is better when the patient is recumbent, and worse when he is moving about, and also soon after taking a meal.

CALCIFICATION OF THE LATISSIMUS DORSI MUSCLE.

The history of the case was as follows:—

A girl, æt. 8, who had always been healthy, was attacked by diphtheria in December, 1874, which resulted in complete aphonia that continued until April, 1875.

About the first of March she began to experience some difficulty in raising the right arm, which gradually increased, and on the first of May she was unable to raise the arm at all. This fixed position has remained until the middle of September, the date of the present examination. When examined on the first of May a lump was found in the back which was supposed at first to be due to curvature of the spine, but that was soon excluded. Paralysis of the deltoid certainly was expected in a case of inability to raise the arm from the side, especially as the patient had suffered from an attack of diphtheria, but upon close inspection this was eliminated for the following reason. There was found to be a hard plate about three fingers wide extending from the crest of the ilium directly up the back to the lower angle of the scapula, passing over this bone and up along the border of the axillary region and becoming united to the humerus. This hard plate, bony to the touch, was in the exact situation of the latissimus dorsi muscle, and was what held the arm in the fixed position indicated. It was believed to be quite possible that this muscle in the course of the diphtheria became the seat of inflammation, and it occasionally happens that an inflamed muscle becomes the seat of calcareous degeneration. In some cases bone has been found replacing muscular tissue. It was regarded as advisable to anæsthetize the patient, and then break off the tendinous attachment to the humerus, and also the adhesions which had taken place over the angle of the scapula. The subsequent treatment would chiefly consist of passive motion.

FRACTURED CLAVICLE—AN OLD METHOD OF TREATMENT REVIVED.

Almost innumerable devices have been employed in the treatment of fractures of the clavicle, but in this instance the broken bone had been permitted to unite without any special dressing. The man, on account of an "unhappiness of the bowels," was kept flat upon his back in bed, and union took place without serious deformity, for the shoulder had been carried by the position of the patient upward, outward and backward very much more than usual when the case is left to nature alone. The result probably would not have been quite satisfactory to a young lady, but it was exceedingly good for a man past the middle period of life.

SYPHILIS SUSPECTED.

The case was one in which there was some doubt as to whether this disease was present or not. This question was determined in the mind of the visiting physician by making firm pressure over the points of junction between the several pieces of the sternum. For, it was observed, the patients will wince when pressure is made over these points when undue tenderness cannot be detected at any other point in the body, and tenderness also disappears last over these articulations, as the case goes on to recovery.

COMPOUND COMMINUTED FRACTURE OF TIBIA AND FIBULA.

The details of dressing in this case are introduced because they vary somewhat from the ordinary method of applying a plaster-of-paris splint in this hospital. A male patient, thirty-seven years of age, six weeks ago fell from a scaffolding thirty-five feet high, and received the injury for which he was admitted. The wound was filled with granulations, but the bones had not united, which was a noticeable feature as illustrating the fact that compound fractures are very much longer in uniting than the simple. The bones had been held in position by dressings more or less fixed, such as side splints, etc., and it was finally dressed in a plaster splint, applied in the following manner: First, two strips of adhesive plaster, two and a half or three inches in width, were placed upon the limb, commencing just below the seat of fracture, and extending for some distance beyond the sole of the foot, and then firmly secured by a roller bandage, which had also been made to cover the foot. A slit was cut in one strip, a short distance from the foot, and the other caused to pass through it, and then the strips were twisted together, thus making a convenient attachment, by means of which an assistant could make extension, and at the same time keep the limb in the proper position while the splint was being adjusted. Next, a piece of an old woollen blanket was laid upon the limb, and the distance measured from the knee along the anterior aspect of the leg and foot, *nearly* to the ends of the toes, and then a strip torn off. This strip was spread over the limb and carefully moulded with the tips of the fingers along down the sides, carefully carrying them around upon either side until they could be brought in contact under and upon the posterior surface. In the crease thus made in the flannel a pencil was carried, which marked the exact line where the cloth should be cut; a fenestra was also marked out around the wound in the soft parts. In this manner a perfect pattern of the limb was obtained by the exercise of only a very small amount of mechanical skill. It is not necessary to carry the blanket around the sole of the foot only sufficient to prevent eversion and inversion.

A second piece of flannel was cut after the first pattern, and the two pieces were all that were employed in making the splint. These pieces were then dipped in water, for two reasons: first, to shrink them; second, because they would take up a larger quantity of the plaster mixture by so doing.

A mixture of plaster-of-paris with water was next made, of about the consistence of thick cream, and the flannels were immersed in it. From this one was removed and spread out smoothly upon a board, the plaster rubbed well into its meshes and then returned to the mixture, and the other piece was then treated in the same manner. The first piece was then spread out smoothly upon the board, and the second applied directly over it. Prepared in this way, they were permitted to remain until the first indications of setting were manifest, when they were quickly applied and moulded to the limb, and secured by a roller bandage. When well set, the bandage was removed and the splint was completed. The shrinkage obtained by first dipping the flannel in water affords a splint which is open somewhat upon the posterior aspect of the limb, perhaps one-sixth or one-eighth of its circumference, which was regarded as a great advantage gained over the ordinary method of applying this fixed dressing. With regard to the

EXUBERANT GRANULATIONS,

which were fully exposed through the window made in the splint, they were treated as follows: First, an antiseptic preparation was made by taking glycerine and carbolic acid crystals, equal parts, and of this, one part was added to six of linseed oil. A large piece of oakum was then wet with this antiseptic mixture and bound over the wound firmly with a bandage, so as to make a pressure equal with that effected by the splint. In this way a porous carbolized cushion was obtained, that did not adhere to the surface of the granulations, that absorbed the pus and prevented it from working under the splint about the edges of the wound, and at the same time repressed the exuberant granulations. If such a dressing is changed sufficiently often, no trouble need ever be experienced in preventing the discharges from running over the surface of the limb and getting under the edges of the opening in the splint.

CHRONIC VALVULAR DISEASE OF THE HEART.

The following case presented certain points of interest which are worthy of note. A young man, æt. twenty-three, had been sick "off and on" for three years, but previous to that time had never had any sickness; and had never had articular rheumatism, scarlet-fever, measles, or other disease incident to childhood. The *first* thing the patient noticed was, that after running at a fire he suffered from palpitation of the heart, and soon after coughed a little and spat up some blood. He claimed that he got well from this attack very soon, and that three months afterwards he again got excited, ran about half a mile, and had a second attack of palpitation and hæmoptysis, from which he also quickly recovered. Six months after the second, he again got excited in dancing, and had a third attack of palpitation and a hemorrhage, which was much worse than either of the preceding, for it laid him up for some time; but he ultimately recovered and went to work feeling as well as ever, except a choking sensation at times and a shortness of breath. The shortness of breath was marked, upon the slightest over-exertion, at the time of examination. Upon physical examination the conformation of the chest was found to be good, respiration somewhat labored, apex beat two inches below and a little to the left of the nipple and accompanied by a slight purring thrill, and a murmur was heard just preceding the first sound, having its greatest intensity over the apex, and ceasing abruptly when the stethoscope was carried to the left more than an inch, or an inch and a half, but was audible over the entire anterior portion of the chest. The very *abrupt* cessation of the murmur towards the left was its remarkable feature. It also ceased with the beginning of the first sound, and now a student was asked to explain the hypertrophy of the left ventricle which was present. There was no aortic or pulmonic lesion, but it was thought that perhaps there was a tricuspid murmur which could be detected, if the patient were examined under more favorable circumstances. The case was interesting, because it illustrated how a serious valvular lesion may be developed, depending apparently upon an idiopathic endocarditis. Rest was regarded as a great agent in the treatment of such cases, and sustaining the nutrition of the body also as very important.

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DR. ROBERT EDES has been appointed Professor of Materia Medica at Harvard Medical School.

Progress of Medical Science.

THE DIFFERENT FORMS OF BRIGHT'S DISEASE.—M. Lancereaux has recently expressed his views on this subject in a paper read before the Association Française pour l'Avancement des Sciences. He observes that since the period of Bright's researches the use of the microscope in the study of renal pathology has led to the discovery of so many different lesions, each of which finds expression in a special group of symptoms, that the name Bright's Disease is no longer a term of precise meaning, as it fails to express any single definite disease as a distinct morbid entity. He therefore proposes the following classification, as more in accordance with the present state of renal pathology:

VARIETIES OF BRIGHT'S DISEASE.		CAUSES.
1. Interstitial nephritis.	Primary.....	Gout; lead; congenital contraction of the aorta; arterial lesions.
	Consecutive.	Various obstructions to the emission of the urine without vesical suppuration; cancer of the uterus; fibrous tumor.
2. Epithelial or parenchymatous nephritis.		Damp; cold; scarlatina; eruptive fevers; diphtheria; cholera.
3. Fatty degeneration, renal steatosis.		Alcohol; phosphorus; yellow fever; grave icterus.
4. Amyloid degeneration.		Prolonged suppuration; various cachexiæ.

The interstitial connective tissue, it is observed, has an entirely different origin from that of the epithelial bodies. The latter are derived from the internal layer of the blastodermic membrane, while the former proceeds from its middle layer. These two tissues present a different susceptibility to morbid influences: they are not affected uniformly or simultaneously. Sometimes the disease begins in the connective tissue and sometimes in the epithelial, though after a time there may be a certain mingling of the two processes, so that both tissues will be implicated together. The division into the large white kidney and the small contracted kidney is thought to be insufficient. The interstitial variety is subdivided into primary and consecutive, according to the conditions under which it occurs. In the former the kidney becomes granular, in the latter it remains smooth.

The lesion in interstitial nephritis is in the intervals between the cortical tubules. Little white spots occur in the centre of points of congestion. Fibrous tissue is developed at these points, causing contraction of the tubules and atrophy of the renal tissue. Certain of the tubules undergo a compensatory hypertrophy. In the epithelial variety, the lesion is originally in the epithelium, the interstitial tissue remaining intact. The epithelium becomes swollen, whitish and granular, and the tubes are obstructed. The arterial system is unaffected, and there is no cardiac hypertrophy.

The symptoms of the two varieties likewise present marked differences. In interstitial nephritis the development is slow and insidious. The urine is slightly increased, of a pale hue, and has a specific gravity of 1005 or 1009. It contains a moderate quantity of albumen, and may be of a faint rose-tint. Headache and insomnia ensue, and finally convulsions and death. The fatal termination may be delayed by the intervention of vomiting or diarrhœa, by means of which portions of the excrementitious matters are eliminated from the blood. The duration may be several years. Occasionally, in the latter stages, dropsy occurs. In the epithelial variety the development is sudden and the evolutions rapid. The urine is diminished in quantity; it is dark-colored, and increased in density. Specific gravity 1020. A marked anasarca develops rapidly.

With regard to the third and fourth forms of nephritis, it is observed merely that the renal steatosis is related to the epithelial nephritis, while the amyloid nephritis bears a similar relation to the interstitial nephritis.—*Le Mouvement Médical*, Sept., 1875.

A Case of Congestion of the Liver where Puncture was resorted to, with Relief of Symptoms.—A Burmese convict was admitted into hospital on the 19th of June last, with intermittent fever. On the 22d of June, while under the care of Surgeon-Major Blanc, of the Indian Army, he showed symptoms of an affection of the liver, that organ being enlarged and sensitive to pressure, and extending some four inches below the tenth rib. The general symptoms accompanying the affection not moderating, but the swelling increasing, it was resolved in consultation, and relying on the favorable report of Professor Maclean, of Netley, to puncture the liver with the needle of an aspirator. Accordingly, needle No. 2 of Potain's aspirator was introduced into the most prominent part of the swelling, which was three and a half fingers' breadth below the right false ribs, and four fingers' breadth from the median line. About an ounce of black blood was withdrawn, in which were mixed a few pus-corpuscles, as shown by the microscope. The operation afforded the patient undoubted relief, the respiration falling from 34 to 26, though the pulse and temperature were not specially influenced, the latter rising two degrees on the day following, but falling to its former standard on the second day. The liver, however, commenced contracting, and continued to do so for five or six days. About this time general œdema began to make its appearance in the limbs, and becoming general, the patient gradually failed until death occurred, seventeen days after the operation. The autopsy showed that death was due to anasarca, the result principally of excessive fatty degeneration of the heart, while the liver appeared to have nearly recovered its normal condition; so that though the case terminated fatally, the operation was thought to have been beneficial rather than otherwise, the withdrawal of this small quantity of blood relieving the distended hepatic vessels from over-pressure, and so restoring them in a measure to their normal condition.—*The Lancet*, Sept. 25, 1875.

Esmarch's Apparatus Successfully employed in the Treatment of Aneurism.—The following case, reported by Staff Surgeon Walter Reid, of the Royal Naval Hospital of Plymouth, illustrates a new application of Esmarch's bloodless system, and seems to recommend itself for its simplicity, safety, and rapid action in facilitating a successful result.

A seaman came under treatment for a sacculated femoral aneurism of large size and attended with strong pulsation. After a considerable period of rest, while upon farinaceous diet, treatment by flexion of the knee was commenced. Four days later the œdema and severe pain in the limb caused this treatment to be abandoned Three days later two compressors were applied, one to the main trunk at the brim of the pelvis, and the other at the apex of Scarpa's space. After four hours' continuous compression the pulsation stopped, but soon after returned. Compression was then tried in a variety of ways, but without success. It was finally decided to try Esmarch's system, as more likely than any other plan to produce stagnation in the sac, and so coagulation. The elastic bandage was accordingly applied to the whole limb, but slight pressure being brought to bear upon the aneurism, so in fact as not to compress it. The elastic tubing was then wound around the limb, over the highest turn of the bandage, and then secured. The limb assumed a dusky hue and lost heat, but the aneurism was of its usual size, though not pulsating. After fifty minutes, the patient complaining of pain, the tubing was removed and a compressor (Carte's) applied to the main trunk at the brim of the pelvis. The pulsation which had thus been arrested never returned, even when the compressor was removed, as happened a few minutes later. The collateral circulation appeared then to be established. During that day and the subsequent one, until evening, the patient applied the compressor in an intermitting manner, having directions to remove it for a time when its application gave him pain. The aneurism is now regarded as permanently cured, though the appliance was put in use on the 11th of September last. The writer believes that the success of the treatment depended on the stagnation of the blood, which induced coagulation; though possibly other influences, such as the loss of heat and the condition of the tissues, so nearly resembling death, may have contributed to the same result. In extending this idea, he thinks it may be admissible to inject fluids into the sac to induce coagulation when the limb is thus rendered bloodless.—*The Lancet*, Sept. 25, 1875.

Treatment of Empyema.—Prof. With says that though collections of fluid in the pleural cavity are often cured by nature, the assistance of art is, nevertheless, generally necessary. In selecting the mode of operation it is important to make an accurate diagnosis between those cases where there is considerable serum and but little pus, as well as in those where the pus is greatly in excess of the serum. In the former cases the collection is to be removed by puncture, and the puncture hermetically sealed; in the latter by incision, with subsequent drainage. Both operations should be performed antiseptically, that is, in a carbolized atmosphere, using a carbolic acid water-spray.

Finding that, notwithstanding every precaution, the percentage of fatal cases was very great, and that it was impossible to prevent the decomposition of the pus, Prof. With has for two years made use of injections of quinine solutions into the pleural cavity, after removing the pus, and has succeeded in saving all his cases of primary empyema. The sulphate of quinine is to be injected in doses of from one to one and a half grammes daily. The discoloration and unpleasant smell of the discharge is soon changed under this treatment. The fever diminishes, and the patient's strength and general condition improves. As this progresses, the dose and its frequency is correspondingly diminished.—*Hospitals-tidende*, Aug. and Sept., 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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STATE EXAMINATIONS FOR THE DEGREE OF DOCTOR OF MEDICINE.

Among those physicians who take pride in their profession, and are anxious to see its ranks filled by only worthy men, there is a growing desire to have the power of granting degrees taken from the medical schools and placed in the hands of men who will be free from school interests, jealousies, and prejudices. If the schools were endowed, and the professors paid a fixed salary, independent of the number of students in attendance, the result would probably be that no better and stricter examiners could be found than the professors themselves. The rivalry between the schools would then spend itself in endeavors on the part of each to graduate the most thoroughly trained, the most skilful, and the best informed physicians. This is the case at the present time with the best literary colleges in the country, which are in large measure endowed. They are constantly raising the standard of admission, and rendering the curriculum better adapted to the wants of the student. The endowment of medical colleges in this State, however, is a thing of the not very near future. One or two of the schools, it is true, are making efforts to secure such an endowment; but surely the most sanguine friends of these institutions must confess that it will probably require years still of patient and persevering labor for the realization of their hopes. On the other hand, how is the standard of requirements for graduation to be kept at a uniform height if one or two only of the seven medical colleges in the State are strict in issuing diplomas to their students. The endowment, therefore, of one or two of our medical schools, however desirable for the interests of higher medical education, will not accomplish the result for which all earnest physicians hope, viz., the establishment of a uniform and reasonably rigid standard of requirements for receiving the degree of doctor of medicine.

As this question has been thoroughly discussed in all its aspects by a committee of the American Medical Association, not to mention the scores of essays and editorials that have been devoted to it, we must confess at the outset some fear lest our efforts to solve the difficulties will prove as unsuccessful as those just alluded to. The medical profession, however, has too deep an interest in its own welfare and reputation as an organic body to let so serious an evil as that which the present system of examination involves continue, without making renewed efforts to remedy it. It is with this object in view that the following scheme of a plan for State examinations for the degree of doctor of medicine has been prepared. The chief points only are given, and these are stated in the briefest possible manner, as otherwise the article would necessarily have to be of considerable length:

Examination of candidates for the degree of doctor of medicine; fees.—All candidates for the degree of M.D. to be examined by a State Board of Examiners. Previous to the examination they are to pay a fee of twenty dollars, and to furnish the examiners with satisfactory testimonials regarding age, course of studies pursued, etc., etc. The actual conferring of degrees to be done by the colleges in the usual manner, the wording of the degree simply being changed to conform to the new régime.

Places and times for examination.—Examinations to take place during February in New York, Albany, Syracuse, and Buffalo; during September in New York and Syracuse.

Number of examiners needed.—There should be seven examiners, one for each of the following departments of medicine:

1. Anatomy. 2. Physiology. 3. Chemistry and Materia Medica; Hygiene. 4. Pathology and Practical Medicine. 5. Surgery. 6. Obstetrics and Gynecology; Diseases of Children. 7. Pathological Anatomy.

Remuneration of the examiners.—The examiners should be paid not less than $25 a day during actual service. The mode of management of the fund accruing from candidates' fees to be determined by the State Medical Society. Whether the service should last for several years or only for one year, will also have to be determined by the State Society.

How shall the examiners be appointed?—The examiners should be appointed in part by the colleges themselves, and in part by the State Medical Society. This can be effected through a committee of appointment, to consist of fifteen or sixteen men—one from each of the seven medical colleges, and the remaining eight or nine chosen by the State Society. This committee to meet during the session of the State Society, and to select seven men (and seven substitutes), who shall constitute the State Board of Examiners for the degree of Doctor of Medicine.

This outline sketch covers, we believe, the most important features of the scheme. Hitherto the great obstacle to the inauguration of any kindred reform has been the powerful influence brought to bear against it by the medical colleges. Their fear has been that the work would not be carried out with thorough impartiality, and that consequently they would have nothing to gain and probably something to lose by the change. In the present plan the aim has been to throw upon the colleges a large share of the responsibility for the selection of good examiners. Their representatives would constitute a strong minority of the committee of appointment, and upon them would probably devolve in the main the duty of suggesting the names of suitable candidates for the positions in question. Hence it might reasonably be expected that, if such a plan were carried into effect, the colleges would withdraw their opposition.

There are many points of interest connected with the details of such a system of State examinations to which we may refer at another time.

Reviews and Notices of Books.

Vision: Its Optical Defects, and the Adaptation of Spectacles. By C. S. Fenner, M.D.

This is a work of three hundred pages, printed in excellent large type, and on thick, creamy paper, and, as a specimen of the publishers' care and attention to details, is worthy of high praise.

It is divided into three parts: the first is a short and incomplete chapter on physical optics, as preliminary to the study of the second part on physiological optics. The third and largest part is devoted to the discussion of the errors of refraction and defects of accommodation, and the adaptation of spectacles.

The author has not succeeded in making this a popular treatise, the very nature of the subject making that a difficult task. The arrangement of the contents of the book is very faulty, and wofully deficient in system. The marks of the scissors and paste-brush are plainly evident all through the work, and it may be fairly said that the work of compilation has not been well done. The editor has not taken the trouble to fill up the gaps in his structure, or endeavored to make it a homogeneous whole. In quoting authorities, he mentions Stellwag, but entirely ignores the American edition of his work. The illustrations are generally good, and the execution of them excellent. While we have an English translation of Donders' immortal work upon the Errors of Refraction and Accommodation of the Eye, we have always an authority to whom we can turn for both instruction and entertainment; and in view of this, one is tempted to ask why this compilation of Dr. Fenner was published. Still it may be of use to the general practitioner, if the latter can supply the gaps in the discussion of physical and physiological optics, which detract so much from the value of the work.

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M. Bouillaud has resigned his chair as Professor of Clinical Medicine in the Faculty of Paris.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 13, 1875.

Dr. F. Delafield, President, in the Chair.

OSTEO-MYELITIS OF THIGH—REMOVAL OF NECROSED BONE AND RECOVERY.

Dr. Mason presented a specimen of osteo-myelitis, which he had removed from a boy six years of age, who entered Bellevue Hospital, November 9, 1874. His previous history was not very satisfactory. Indeed it was difficult to find how long before he went to the hospital that he began to suffer, or in what way he had received the injury. One account was, that some days before entrance, he fell down a flight of steps, while another history was, that the patient had been struck on the inside of the knees.

When he entered the hospital he was suffering intense pain. His leg was flexed upon the thigh and the thigh upon the pelvis. His temperature was 103° F. For the first five day's he suffered a great deal from delirium and sleepless nights. At first there was no swelling, but the limb was intensely painful to the touch. It was not until some days had elapsed that the swelling took place, extending from the knee to just below the trochanter. On the 23d of November fluctuation was detected just over the inner trochanter. An incision was made at this point and a considerable amount of pus was evacuated, together with some clots of blood. At this time the patient had a severe attack of synovitis, which threatened to go on to suppuration.

In order to counteract the flexed condition of the limb, it was straightened out and subjected to a weight and pulley. In the meantime sinuses had formed in the neighborhood of the joint, and were discharging pus.

On January 7th a swelling was noticed two and a half inches below Poupart's ligament. This was opened and pus was evacuated. A seton of oakum was then passed from this opening to the one previously made. This was in turn removed and the tract thoroughly syringed with carbolic-acid water. The discharge continued to be quite profuse, and his health suffered more or less in consequence, so that at one time the temperature was 104.

On February 15th, when the house-surgeon was dressing the limb, he noticed that a fracture of the thigh had taken place, at the junction of the upper and middle thirds. Previous to this there was a good deal of thickening and hardening all along the limb, which was thought to be due to an involucrum, and at the consultation it was thought that this involucrum had been fractured. The patient's condition did not admit of an operation, and he was kept as still as possible by means of extension. On February 25th the upper, just below Poupart's ligament had closed.

On April 1st a consultation was held in his case, when it was decided to remove what dead bone could be found. The operation was performed on the 3d of April, but instead of involucrum, nothing was found but thickened periosteum, inside of which was contained five and a half inches of necrosis detached from the epiphyses. The dead bone was removed and the limb treated in the ordinary way by plaster-of-paris bandages.

The patient did remarkably well after the operation, so that by the 28th of May the wound had entirely closed, and by the 19th of June he was able to walk without crutches. The case was regarded as one of osteo-myelitis, the periosteum being secondarily involved.

The patient was exhibited to the Society. He had good use of the lower extremity, and very considerable motion at the knee-joint. The shortening was an inch and an eighth.

MYOSITIS OSSIFICANS.

Dr. V. P. Gibney presented the following account of a case of myositis ossificans:

The subject of the present history is a female æt. ten years. She presented herself for treatment at the Hospital for Ruptured and Crippled, out-door department, May 22, 1875, and a hasty examination revealed nothing save an apparent right skoliosis, for which a brace was ordered. On returning from my vacation I saw her again, September 14th, and the mother called my attention to a small "lump" over her right scapula. It felt like an exostosis; I traced it, however, to the humerus, where the latissimus dorsi is inserted, and found that the arm could be raised from the side over an arc of only 30 or 40 degrees.

The hardened mass, triangular in form, was at the same time discovered in the right lumbar region, one side of the triangle being continuous with the spinal column, the processis of which were in a vertical line without any lateral duration. I had Dr. Janeway in consultation, and he suggested myositis ossificans. Subsequently the scaleni muscles, same side, were found to participate in the ossific process. Prior to December, 1874, the child was perfectly well. Had diphtheria, which was followed by paresis of vocal cords. Convalescence delayed. The mother is unable to fix the date of beginning of ossific process, except that in the early spring she noticed a stiffness when the child attempted to bend forward.

While under my observation no decided changes have taken place. The scaleni muscles do not feel so hard as the others involved. I am curious to see whether the disease will progress, and hence operative interference is postponed. The muscles thus far affected are latiss. dors., erector spinæ and scaleni, all on right side.

Rindtleisch speaks of it as a true bony change, and likens it in all respects to the "drill bone" noticed in the recruits of the Prussian service. These growths, eighteen cases of which have been observed, occur over the left arm at the insertion of the deltoid muscles. The cause of this was obvious. In the article on Diseases of Muscles, Holmes' System of Surgery, is a report of a very extensive case in St. George's Hospital, under the care of Mr. Cæsar Hawkins. Blistering repeatedly seemed to afford the most relief. In the Museum of the College of Surgeons, London, is the skeleton of a man in whom nearly all the muscles of the back had become ossified.

Dr. Janeway remarked that this was the first extensive deposit of the sort which he had seen. The point of interest, however, rested in the treatment which suggested itself, viz.: the breaking up of the bony insertions of the latissimus dorsi so as to free the right arm. At the same time this was done a portion of the bony material could be obtained for microscopic examination.

Dr. Knapp referred to a case of a woman, aged 30, in whom the majority of the muscles of the upper part of the body were perfectly stiff. The case had been described by Prof. Von Dusche Although the disease had existed for twenty years it was still progressing.

Dr. Heitzmann stated that he had experimented upon young dogs by means of lactic acid, and had succeeded in causing the absorption of the bones to the extent of producing rachitis and osteo-malacia. He believed that it would prove a remedy for extra bony growths, and suggested its trial in the case presented.

Dr. Janeway suggested that the use of lactic acid might tend to reduce the legitimate bony structure, but not affect the new growth.

Dr. Knapp did not think this a reasonable objection, inasmuch as it was well known that foreign deposits yielded first to such remedies.

Dr. Janeway presented a small specimen, accompanied with the following history, prepared by Dr. Van Vorst.

Samuel A. Jones, 36, single, a native of U. S., porter. Family history unknown. Has been accustomed to drink. Has had specific disease and secondary manifestations.

He was admitted to Bellevue Hospital, Aug. 28th, 1875, complaining of a feeling of coldness, followed by profuse sweating, which would occur every day, about nine o'clock in the morning. Never had a distinct chill. He felt himself becoming weaker and saw that he was much paler. Lungs and heart normal. Liver and spleen were not examined at this time. Urine, sp. gr., 1014, acid, no albumen; a microscopic examination revealed nothing. Quantity normal.

Patient took to the bed on admission. He was placed on large doses of quinine and tinct. of the chloride of iron.

At the end of two weeks there was no improvement. He was becoming more anæmic and weaker. Temperature and pulse both normal. Diarrhœa occurred, but was easily controlled.

Patient continued in this condition, but growing weaker and more anæmic, until a week before his death, when he complained of "an oppression" in the epigastrium. An examination could not reveal any tumor in this situation, nor very marked tenderness. The liver was enlarged, but nothing like hard nodules could be detected. Three days before death Dr. Janeway examined him, and found the liver, and also the spleen, slightly enlarged. He also examined the blood, but found no increase of white globules. Pulse, respiration, and temperature were normal at this time. Urine, sp. gr., 1016, acid, no albumen. Quantity normal.

On Sunday, Oct. 3d, he was seen at the usual visit, about nine o'clock, and made no complaint of feeling worse, or of suffering any pain. At 11 o'clock A.M. the house-physician was called to him, the orderly stating that he had awoke, from a sound sleep, complaining of intense pain in the epigastric and left hypochondriac regions. House-physician found him in a profuse perspiration, pulse 120, respiration 34. He was perfectly conscious, and said "he knew he was going to die." No paralysis existed. Pupils normal. Ten (10) minims of Magendie's solution of morphia were given hypodermically, and hot cloths placed over the site of pain. In ten minutes he said he felt easier. At this time one of the visiting physicians arrived, and the house-physician left patient, thinking that as the pain was relieved, there was no pressing need of his remaining. On his return at the end of an hour he was told that patient had died. From the accounts of the patients in the beds near him, there were no convulsive movements, but death took place suddenly.

On post-mortem examination the brain, heart, and lungs were normal. The liver was markedly enlarged, and scattered throughout the whole of its substance were numerous whitish gray points, from the size of a pin's head to a marble. The lobus spigelii was almost filled with them, half of its substance being so occupied. They produced no induration on the surface. On cutting through the deposit there was a moderately firm resistance, but no whitish juice exuded.

The spleen was found to be half of its normal size, softer than natural, and in its substance was a slightly whitish-looking deposit here and there. The mesenteric glands were slightly enlarged, as was also the case with the lumbar glands. Peyer's patches, the solitary follicles, in fact, all the other glands of the body, were normal.

A microscopical examination of the liver revealed a new formation, composed of round lymphoid cells, arranged in a reticulum growing in the connective tissue surrounding the portal. The spleen was not examined. This lymphomatous tissue also occupied the substance of the kidney. The marrow of the femur was red, but contained very little fat.

In conclusion, Dr. J. spoke of the difficulties attending the diagnosis of this case, the usual signs of the disease being either absent, or so modified in relation to each other as to be of negative value only. It was quite evident from the autopsy that the spleen did not claim that amount of attention that was usually its due.

Dr. Delafield asked if he (Dr. J.) felt very confident about the changes in the bone-medulla, as that tissue varied very much in the appearances which it presented in health.

Dr. Janeway said that scarcely any adipose tissue was discovered, and the oil globules were so conspicuously absent, that but four or five appeared on the microscopic field at one time, the remainder being made up of round cells, and reticula and red globules and vessels. He doubted not that many of these cases were called cancer of the liver; in fact, he had seen one such case which might have been diagnosticated thus, except for the increase in the white blood-globules.

A short discussion was then held by Drs. Beverley Robinson, Janeway, and Delafield in regard to the diagnosis between leuchæmia and pseudo-leuchæmia; after which,

Dr. Post presented a specimen of lipoma. It was removed from the shoulder of a man, aged sixty years, and had been growing for nine years. The points of special interest connected with it were: 1. That the integument over the mass had ulcerated, giving rise to frequent hemorrhages. 2. That there were large and tortuous vessels over its surface, giving it the gross appearances of a malignant growth; and, 3. That there was more than the usual pseudo-fluctuation present. The growth weighs 5½ pounds.

Dr. Delafield had seen one large lipoma in which the conditions of ulceration and hemorrhage were present.

Dr. Knapp, in this connection, referred to a large tumor of the kind, situated in the upper part of the back, while in another case in which a tumor was so situated as to invite severe irritation, neither ulceration nor hemorrhage took place. The latter case presented itself at Langenbach's clinic, and the tumor occupied the sacral region, hanging over the buttocks like an apron, being half a foot long and one foot broad, and being in the same position as the usual fashionable female ornaments now worn.

Dr. Lewis Smith presented the brain removed from a male adult, aged fifty-two years, who came into Charity Hospital on the 24th of last month. At that time he was complaining of a dull pain in the occiput, and also in the lumbar region. These were his only symptoms, with one exception—a slight paralysis of his right arm, right leg, and left side of the face. This paralysis was not such as to prevent his walking about. His symptoms not being very marked, not much attention was given to his case, and he was simply kept quiet.

On the 5th of the present month he thought that he had sufficiently recovered to air himself in the grounds with the convalescents. While there, and about one o'clock in the afternoon, he was suddenly seized with a convulsion affecting the right arm and leg and the muscles on the side of the trunk, and those of the right side of the face. These convulsions were not marked, but rather like those of paralysis agitans. He was taken back to his bed, when these convulsions continued at short intervals, during most of the afternoon.

At two P.M., one hour after the seizure, the temperature was taken. In the right axilla it stood at 107¾°, while on the left it was 103½°. There was a difference then of four and a quarter degrees in favor of the right (partially paralyzed) side. In order that no mistake could be made, the temperature was again taken an hour afterwards, when it was found that the right side gave 108° (the convulsive movements continuing), while on the opposite side it had made a proportionate increase, being 104°. This difference was proportionately during the whole duration of the case.

At 4 P.M., Dr. Smith made his usual visit, when the patient was found to be passing into a comatose state. The convulsive movements were then very feeble, and the pulse was 120. The pupils had been dilated most of the time, but were at times contractile. The patient expired two hours later.

The autopsy was made 20½ hours after the convulsive seizure. On removing the calvarium nothing unusual save a little flattening of the cerebral convolutions was observed. This condition was most marked on the left hemisphere near the vertex. At the base of the brain most of the arteries were in an atheromatous condition, their calibre being very much diminished thereby. On opening the lateral ventricles about three ounces of straw-colored fluid escaped from each. The posterior portions of these ventricles were much distended. On slicing the brain, in both hemispheres, but more particularly in the posterior and middle lobes, and also in the corpus striatum and thalamus opticus, were found numerous points in which were cysts, varying in size from a kernel of wheat to a pea. The brain substance had been absorbed to make room for these new growths. In the substance of the pons varolii there was found one of these cysts of considerable size.

It was expected from the symptoms, that an artery had been ruptured, and that death had been occasioned by extravasation. Such a clot, although of the size of half a chestnut, was found in the left corpus striatum, but this was probably produced by the obstructed circulation, consequent upon the convulsive movements already noted. At all events, this clot did not seem large enough to cause the death of the patient.

The liver was cirrhotic and the kidneys were atrophied and fatty. There did not appear to be much general softening of the brain substance.

The points of interest were, 1, the disparity of temperature between the two sides; 2, the cause of death; and, 3, the cross-paralysis.

Dr. Janeway remarked that the atheromatous arteries in the first place produced a fatty degeneration of portions of the brain, and were in all probability the starting points of the phenomena noticed.

A SECOND EXAMINATION OF A TUMOR OF THE TESTICLE.

Dr. C. Heitzmann exhibited microscopical specimens of the tumor of the testicle, which was extirpated in November last year by Dr. H. B. Sands, and presented at the time to the Society. At that time Dr. Delafield, who examined the tumor, called it a compound adenoma. Dr. H. did not agree with that diagnosis, and stated his reasons for so doing:

By comparison of healthy testicles with the tissue of the tumor it becomes evident that no new formation of glandular (tubular) tissue took place during the development of the tumor, though many tubuli are enlarged, and partly even transformed into cystic cavities. The main part of the tumor is built up by an indifferent tissue, which looks like marrow of bone or cartilage, the elements of which are round or spindle-shaped. Between the elements there is a hyaline, but scanty basis substance, quite analogous to that of marrow. We then have to deal in this case with a kind of tumor, termed by Virchow "round and spindle-cell sarcoma." Imbedded in the sarcoma we find islands of hyaline cartilage, of the size of a hempseed to that of a pea, provided with large multinucleated cartilage elements. Besides the cartilage we see on a few places portions of new-formed bone, which lay close to the islands of cartilage, partly lined by marrow elements, which, when filling up the bays of the bone, show the character of multinucleated protoplasmic bodies, so called "myeloplaxes." Tumors of this kind usually grow fast, and are liable to metastatic deposits in different organs of the body, being of a very malignant nature.

Dr. Delafield remarked that in regard to the point of a new formation of glandular tissue, it was a question which had been raised ever since the first of these tumors had beeen examined. These composite tumors of the testicle reaching a large size, and composed of different kinds of tissue, had always excited the attention of pathologists. The question in the case in hand was whether the tubules were old or of a new formation. A great many different opinions were found on both sides of the question. The tumor in question had shared the usual fate of being open to suspicion, but Dr. D. was satisfied that a new growth of glandular tissue was present, as he had carefully compared them with the appearances of the old tubules in the same specimen.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 21, 1875.

Dr. S. S. Purple, President, in the Chair.

THE RHEUMIC DIATHESIS IN DERMATOLOGY.

Dr. H. G. Piffard read a paper upon this subject, in which he discussed eczema, psoriasis, pityriasis, as belonging to a common diathetic condition to which he had given the name *rheumic.* He had given it this name because, first, it implies an exudation; second, because the blood condition probably is similar, if not identical with that which gives rise to rheumatism and gout; and third, because the vulgar name salt-rheum embraces these affections, and indeed rheums or rheumes is a name which has been frequently used for the diseases under consideration.

There are three important points to be studied in connection with the rheumic diathesis.

1. With regard to its veritable existence.
2. As to its nature; and
3. As to whether the affections assigned to it really came within its influence.

The existence of this diathesis cannot be considered as positively proven. We are able only to form an opinion from a preponderance of probabilities, and, in addition, the concurrent opinion of many able observers in this country assist in establishing it. With regard to the nature of the *rheumic* diathesis, it is not a mere matter of theoretical interest, but an important question when considered from a therapeutical standpoint. The views of the older writers regarding the essential causes of cutaneous affections are of but little value. Nor have the views entertained by various writers of the present century been very clearly formulated. By one class of observers the diseases included in the rheumic category depend upon the same constitutional conditions which give rise to rheumatism and gout. Others regard them as due to retention of urinary elements in the blood. Others, that they are due to a peculiar vice of constitution, of the exact nature of which we are ignorant. Others, that they are sometimes due to the presence of oxalates in the system, etc. The various opinions expressed, however, by those who argue for a constitutional origin, are one in idea, as all agree that they are due to the presence of some *materies peccans.* The views of the author of the paper harmonize substantially with those stated, and may be formally stated thus. They are affections which pertain to an accumulation or excess of excrementitious substances in the blood, and presumably in an accumulation of those which are efficient in the production of gout and rheumatism. The following are the principal noxious agents, viz.: Uric, lactic, and oxalic acids, creatine, creatinin; there may be others. Some of these substances are derived from the albuminoids which have been introduced into the system; others are obtained sometimes from the albuminoid and sometimes from the amylaceous and saccharine substances introduced.

The general process by which the albuminoid, amylaceous, saccharine, and other substances are disposed of in the system is probably one of oxidation. For instance, the albuminoids may be introduced in the form of food, and finally leave the body as urea; and now if the oxidation of the received albuminoids is incomplete, the result is an increased proportion of urea in the system as the result of sub-oxidation. This incomplete oxidation is to a certain extent normal, and it is only when the substances which result from it accumulate unduly that they prove harmful. Such an accumulation occurs whenever renal action is deficient. Over-accumulation may also occur from over-production, and is probably more frequently due to this cause than to deficiency of excretion. When more than the normal amount of products are obtained as the result of an over-supply of peptones, they are left in the blood to be excreted. The kidneys now being unable to completely carry off all this surplus material, other organs are called in to assist, and the skin is the one which notably manifests efforts in that direction. Reference was here made to the doctrine advocated by Murchison, namely, that the liver is the principal organ which carries on the process of oxidation in the body, and that a deficiency in the action of this organ is the real source of the sub-oxidation which gives rise to these noxious elements. This doctrine the author was inclined to adopt. A pound of beef was then traced from the mouth to the renal discharge. Now, if the processes by which it is transformed into tissue, or, having subserved its purpose in the animal economy, the processes by which the disintegrated tissue is removed by the kidneys—if these processes are arrested, the excrementitious materials seek exit through some vicarious channel, and this in part is furnished by the skin.

The presence of alkalies in the system favors oxidation, and this has an important therapeutical bearing upon the diseases in question.

In answering the third question, namely, whether these affections properly belong in the same category, it is necessary to consider some of their more prominent features. They possess certain characteristics which suggest a mutual relationship, for they have the following features in common: They are not contagious, are frequently general, usually chronic; natural duration is inefinite; two or more forms may be present at the same time; do not always preserve their individual characteristics; relapses are frequent; they all itch; are always superficial, and are all more or less amenable to certain definite methods of treatment which have but little or no effect upon other diseases.

With regard to the

TREATMENT,

the object must be to counteract or modify the diathesis. It is embraced under two heads, namely, rational and empirical. We have the blood surcharged with noxious material, and the accumulation is due either to deficient action of the kidneys or to an overproduction of this material; and there are strong reasons for believing that the liver is the organ which fails to bring about the proper oxidation of material introduced into the system. These are among the considerations which have a bearing upon the therapeutics, and perhaps are the most important. We have, therefore, to depurate the blood in order to remedy what has been left incomplete in the process of oxidation, and this is done by acting upon the bowels, kidneys, and skin. Care must be exercised in acting upon the kidneys, for they may be in a condition in which stimulation will aggravate rather than improve the difficulty. We are therefore obliged to rely, in many cases, chiefly on the action which can be produced upon the skin and bowels in the fulfilment of the indication. To this end the hot-air or Turkish bath may be resorted to with great benefit, and it may be repeated daily without harm. To act upon the bowels cathartics of various kinds may be used, salts and senna answering an excellent purpose, so as to give one or two loose evacuations daily. Active purgation, as a rule, is not required. Mineral waters may be employed with benefit.

If the kidneys are healthy the bowels may be left entirely, and diuretics administered. Among these remedies wine of colchicum, infusion of digitalis, balsam copaiba, propylamin, carbonate of lithia, and Vichy, are the most serviceable, and may be used singly or in combination. The prolonged use of alkalies should be broken by one or two days of intermission each month.

With regard to the question of *oxidation*, if the deficient oxidation occurs because of the introduction of an excessive amount of the albuminoids, etc., the proportion should be diminished by regulating the diet. Hence it may be well to cut off, to a greater or less extent, the use of meat, and substitute for it bread and vegetables. If there is scarcely the requisite ability to take care of a small supply of nitrogenous food the deficiency may be made up by the inhalation of pure oxygen gas, or better, oxidized oxygen. Certain remedies may also be used which are said to liberate their oxygen very readily, such as the chlorate of potash. Finally, if the liver is functionally inactive, certain drugs may be used which are said to stimulate the function of this organ, such as mercurials, podophyllin, etc. Arsenic, which has so long had an enviable reputation in the treatment of these affections, was regarded, upon the whole, as being much less satisfactory as a plan of treatment than the plan of treatment just marked out. Local treatment is of service in almost every case, but was left to be considered in connection with each affection.

The paper being open for discussion,

Dr. L. D. Bulkley remarked that the views set forth in the paper read by Dr. Piffard corresponded almost precisely to those which he had held for some time: and that he was all the more pleased because Dr. P. and himself had arrived at about the same conclusions after having studied the question independently.

The doctor referred somewhat at length to a paper which he had published in the Archives of Dermatology, in April last, on the Relation of the Urine to Skin Diseases. He did not, however, fully accord with the French view of the arthritic and herpetic diathesis; nor fully concur with the doctrine taught by Murchison respecting the function of the liver, and objected to the term *rheumic*, because we already have a sufficiently large group of synonymes to indicate conditions which are identical or at least very nearly so.

Dr. Keyes remarked that he recognized a constitutional diathesis underlying a large number of skin diseases, but that he was not quite prepared to adopt in full the French doctrine. He did not believe that persons who habitually have an excess of oxalate of lime or uric acid in the system are specially liable to skin diseases, for if so, every patient who has an oxalic calculus should have an eczema or some other cutaneous eruption, but such is not the case. He was of the opinion that the facts mentioned in support of the French doctrine were very pretty in theory, but was not, from observations made in actual practice, inclined to accept the doctrine in full. Probably patients who have rheumatic and scrofulous tendency will have different forms of eczema; but at the same time he did not feel inclined to be bound down by a diathesis of any kind. He was of the opinion that the diseases under consideration are much more commonly dependent upon internal than upon external causes, but yet does not feel quite willing to accept as a demonstration the views put forward. There is a tendency in many persons, generally an inherited one, to have eczema, psoriasis, etc., and it is doubtless true that if a person has no such tendency it is almost impossible to produce these diseases; but now having a peculiar condition of system the external circumstances may develop the diseases in question. It is posble that rheumatic antecedents may be a more common cause than any other.

Dr. Joel Foster mentioned citrate of potash as a very serviceable alkali to be used for rendering the urine alkaline, because it is rapid in its action, and does not destroy the appetite as most alkaline preparations do.

Dr. Sturgis was of the opinion that local causes play a very important part in the development of skin diseases, and that entirely independent of diathetic conditions. Such local causes as irritating ointments, scratching with the finger nails, etc., may develop very troublesome cutaneous affections, entirely apart from constitutional conditions. He did not regard the mere presence of uric or oxalic acid in the system as the cause of skin eruptions; for if that is the light in which the doctrine is to be placed, every person who suffers from these deposits most, would be most liable to have eczematous eruptions, etc., but such is not the fact.

He was of the opinion that uric acid was not decidedly increased in eczema. There was no doubt but that eczema and rheumatism are associated in the same individual, but he should hesitate considerably before ascribing the cutaneous disease to the constitutional affection. It is also a fact well established that locally applied stimulants and irritants will produce an eczema that will resist internal treatment continued for a long time, but will yield rapidly to an appropriate local treatment. He did not refuse, however, to acknowledge that a constitutional tendency very often plays an important part in the etiology as well as in the treatment of skin affections.

Dr. J. C. Peters favored the diathetic doctrine.

Dr. B. Robinson felt persuaded that there are forms of these diseases which are due to local causes; but, on the other hand, there are others which evidently are dependent upon a diathetic condition, and in the treatment of which local measures are not sufficient to effect a cure. Local applications may cure for a while, but they are almost certain to return after a varying length of time.

Dr. Bulkley mentioned the importance of keeping the *healthy* portion of the skin in good condition, for the purpose of affecting the *diseased* portions. For instance, a localized acne may be very much benefited by general baths and frictions.

Dr. Keyes favored the use of baths and frictions not so much for favoring the escape of excrementitious matters through the skin as to stimulate the general and local circulation. The idea of keeping the pores open he did not give much credit to, for the reason that he believed they usually were in this condition, and required but little attention in that direction.

Dr. Piffard remarked that it is not the *discharge* of large quantities of uric acid or oxalic which entered into the formation of calculi, etc., but that it is the *lack* of discharge of these substances which *gives rise to* skin diseases.

The discussion being closed the Academy adjourned.

* * *

English Medical Practice.—At the opening of Westminster Medical School of London, Dr. Davy, in delivering the introductory, said concerning the payment and honors conferred on medical men: "Their salaries were simply miserable; hospital physicians and surgeons were for the most part unpaid; poor-law officers most piteously; surgeons in the service, very badly, and young practitioners not at all. For seven years' hard work at the St. Marylebone Dispensary he had received one guinea; and a very distinguished London assistant-physician had found that his salary equalled that earned by the man who put the skid on the 'bus wheels at Holborn Hill. The lecturer had been taught how dignified the profession was. In his opinion the British public introduced far more largely the element of impudence than dignity into practice."

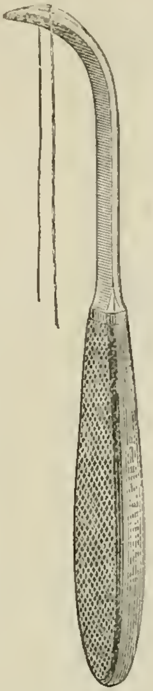
Finally, and for their encouragement at the entrance of their career, Dr. Davy told the students that their early prospects in life were most disheartening. Their toil and ambition might be equally great, but their pay and dignity would be equally small. They had to deal with an ignorant and proud people, and he advised every one to resign at once any and every thought of becoming a medical man, unless he possessed three qualifications: first, independence; second, an aptitude for and love of the profession; third, the readiness to pay a heavy premium in this world for his prospect of reward in the next.

New Instruments.

CHAIN-SAW CONDUCTOR.

To the Editor of The Medical Record.

Dear Sir: Practical surgeons are familiar with the difficulty encountered in conducting a chain-saw around a deep-seated bone where it becomes necessary to perform the operation of exsection. The writer's experience on a recent occasion of this sort led him to devise an instrument that might obviate the difficulty. The instrument represented by the accompanying figure is the result of his efforts, and is now offered to the profession to be tested by experience. The instrument itself is already familiar as an efficient agent with which to work a track around a deep-seated bone. It consists of a thick blade curved flatwise at its extremity and set in a stout handle. The concave surface of the blade is flat, and sharp at both edges and at its rounded extremity; its opposite surface is bevelled off like a chisel at the edges as well as the extremity. It hugs the surface of the bone and works a track for itself by displacing the investing tendinous and aponeurotic structures. By a simple addition to this instrument, a ligature may be attached to its extremity after it has made the circuit of the bone, and on its withdrawal the ligature follows in its track, and then after being attached to the chain-saw conducts it to its place. This addition consists of a longitudinal crest raised to the height of one-eighth of an inch upon the convex surface of the blade near its extremity, where a notch is cut in it looking obliquely towards the handle.



The mode of employing it is as follows: After working a track around the bone the instrument is held *in situ* while a loop of twine engaged over the nail of the forefinger meets the end of the instrument and hitches the loop in the notch. The instrument is then withdrawn and the ligature follows it.

Respectfully,
Gurdon Buck, M.D.,
46 West 29th Street.

September 29th 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Oct. 24th, 1875, *to Oct. 30th,* 1875.

Greenleaf, C. R., Assistant Surgeon.—When relieved by Assistant Surgeon Dickson, assigned to duty as Post Surgeon at Nashville, Tenn. S. O. 156, Department of the South, Oct. 21, 1875.

Woodhull, A. A., Assistant Surgeon.—When relieved by Assistant Surgeon Delany, assigned to duty at Oglethorpe Barracks, Savannah, Ga.

Brown, J. M., Assistant Surgeon.—Assignment to duty at Fort Wood, N. Y. H., revoked, and assigned to duty as Post Surgeon at Fort Wadsworth, N. Y. H. S. O. 213, Mil. Division of the Atlantic, Oct. 22, 1875.

Delany, A., Assistant Surgeon.—Assigned to duty at McPherson Barracks, Atlanta, Ga. S. O. 156, c. s., Department of the South.

Dickson, J. M., Assistant Surgeon.—When relieved by Assistant Surgeon Woodhull, assigned to duty at Huntsville, Ala. S. O. 156, c. s., Department of the South.

Byrne, C. B., Assistant Surgeon.—Assigned to duty at Fort Brown, Texas. S. O. 201, Department of Texas, Oct. 23, 1875.

Skinner, J. O., Assistant Surgeon.—Granted leave of absence for two months, and on its expiration to report to the Commanding Officer, Yorkville, S. C., for duty as Post Surgeon. S. O. 33, Department of the South, Oct. 23, 1875.

Comegys, E. T., Assistant Surgeon.—When relieved by Assistant Surgeon Brown, assigned to temporary duty at Fort Hamilton, N. Y. H. S. O. 213, c. s., Mil. Division of the Atlantic.

NAVY.

October 25.

Scofield, W. K., Surgeon.—Detached from the receiving ship *Ohio*, and ordered to the *Wabash*.

Lovering, P. A., Assistant Surgeon.—Detached from the receiving ship *Ohio*, and ordered to the *Wabash*.

October 31.

Duval, Marius, Medical Director, is ordered to special duty at Baltimore, Md.

Medical Items and News.

Triplets, etc.—Dr. John Lambert, of Salem, Washington Co., N. Y., writes: Seeing an imported case of triplets in last issue of Record, perhaps you may be glad to notice one in my own practice.

July 26th, I delivered Mrs. T. Reid, of this place, at her 8th confinement, of triplets: two boys seven pounds each, one girl six pounds First boy presented knees, the second boy head, and the girl breech. Pains severe and exhausting, expulsive force slight. Each child required manual or instrumental delivery. Placentæ *appeared* to be one, though disposed of before I had opportunity carefully to finish the examination of it.

There were three distinct cords and amniotic sacs; membranes required to be ruptured in each case.

No untoward symptoms. Mother and children have done well until within a few days. I fear the boys will perish from cholera infantum, which is now prevailing in a fatal form in our midst.

I also notice an interesting case of kidney disease.

In July, Dr. Irwin, an intelligent physician at West Hebron, brought me specimens of kidneys recently removed from a child three years old at death. The doctor had only seen the case once in March, being called to make a hasty post-mortem as he was passing a short time previous to the funeral, and he was unable to procure a satisfactory medical history of the case. Body greatly emaciated. We found two large "tumors," one in each hypochondriac region, which he removed and found them to be the kidneys, the right one weighing plump four (4) pounds and the left one weighed two and three-fourths ($2\frac{3}{4}$) pounds. Dr. J. R. Ward, of Troy, has kindly furnished me the following microscopical examination.

"The specimens of kidney sent me are of extreme interest on account of the excessive character of the changes which have occurred in it. In certain portions, it seems to be in a state of cirrhosis, an interstitial fibrous exudation, having crowded out nearly all traces of healthy structure. The greater part of the specimen, however, consists of cheesy masses, which seem to have resulted from tubular inflammation and fatty degeneration, oil granules, corpuscles and epithelium being massed in scanty connective tissue. Portions of tubes covered with cells are occasionally visible."

University of Michigan.—Out of one hundred and thirty-five applicants for admission to the Medical Department of the University of Michigan twelve were rejected on preliminary examination.

The late Dr. E. Krackowizer.—At a Stated Meeting of the New York Academy of Medicine, held October 21, 1875, a committee, consisting of Drs. A. Jacobi and Gurdon Buck, presented the following resolutions, which were unanimously adopted:

Resolved, That in the decease of Dr. Krackowizer the Fellows of the New York Academy of Medicine have sustained the loss of one of their most eminent and highly esteemed associates. Eminent for his thorough and extensive professional acquirements, his varied experience and mature judgment, his practical skill and brilliant success, especially as a surgeon. Esteemed for his honorable and upright character, his unvarying trustworthiness, his cordial and friendly bearing, and his self-sacrificing loyalty to duty.

Resolved, That we will cherish his memory as a bright example of professional rectitude and private virtue worthy of our constant emulation.

Resolved, That a copy of these resolutions, duly authenticated, be communicated by the Secretary to the family of the deceased, with the expression of our sympathy in their great bereavement.

Resolved, That these resolutions be published in the Medical Journals of this city.

S. S. Purple, M.D., President.

W. T. White, M.D., Secretary.

Pancreatin.—At the last annual meeting of the American Pharmaceutical Association a paper, in answer to the following query, was read by Professor E. Scheffer: "Is Pancreatin Converted into Pepton when it is Digested with Acidulated Pepsin?" The writer stated that he was enabled by his experiments to assert positively that pancreatin, when brought into the stomach, became destroyed; and that it, therefore, could have neither physiological nor therapeutic effect when administered internally.

The American Public Health Association.—The annual meeting of this association begins at Baltimore on November 9th, and will continue four days.

The Correspondent who signs himself "X" will secure the publication of his letter by sending us his name.

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Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office, 27 Great Jones Street, one week previous, to insure their appearance.*]

Wednesday, Nov. 10th.—N.Y. Pathological Society, at Col. of Phys. and Surg., 23d st., cor. Fourth av.

Thursday, Nov. 11th.—N. Y. Public Health Association.

Friday, Nov. 12th.—Medical Library and Journal Association, 107 East 28th st.

Original Communications.

REPORT OF THE FIRST RECORDED

OPERATION INVOLVING THE REMOVAL OF THE ENTIRE ARM, SCAPULA, AND THREE-FOURTHS OF THE CLAVICLE.

By DIXI CROSBY, M.D., LL.D.,

LATE PROF. OF SURGERY IN THE DARTMOUTH MEDICAL COLLEGE.

REPORTED BY HIS SON,

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> "The evil that men do lives after them.
> The good is oft interred with their bones."

SHAKESPEARIAN commentators, mindful, doubtless, of the loving principle, "*Nil de mortuis nisi bonum*," have been inclined to transpose this sentiment. They tell us that this was not the real opinion of the "Bard of Avon," but was expressed in the case of Cæsar, for a purpose, by Mark Antony, as he faced an angry populace. Nevertheless, when we recall the large number of strong men in our profession who have labored intelligently and successfully for half a century and more without leaving any of the fruits of their vast experience on record, we are forced to the conclusion that "the good is oft interred with their bones."

The operation, the report of which I now put on record, was performed in March, 1836, thirty-nine years ago, by my lamented father, the late Prof. Dixi Crosby, M.D., LL.D., of the Dartmouth Medical College. This for me is a loving tribute, which I place upon the grave sacred to his memory. For him, it is simply the payment of a debt which he owed to his favorite art,—an art which he cultivated with extraordinary success for half a century.

It is to me a source of never-ending regret that my father's aversion to writing prevented him from recording, for the good of the profession, the life-long experience of an exceptionally large surgical practice, and the matured opinions of an original mind, observing, fertile in expedients, and which never shrank from the gravest responsibility.

In making up a record of this case, I have availed myself of the scanty notes made by the operator himself.

A former pupil of my own, Dr. S. W. Davis, who has practised his profession for some years in the town where the patient resided, was kind enough to get for me, in 1868, from surviving members of the family, as well as from neighbors present at the operation, various important facts in the case.

Fortunately, several persons, both medical and non-medical, who were present at the operation, are still living, and have given me such facts as they have been able to recall. From these data, and a comparison of them, I have made up a history of the case, which I believe to be reliable in all essential particulars.

Jonathan G. Cummings, the subject of this report, was born in Plymouth, Grafton County, New Hampshire, Aug. 7, 1800, and died July 6, 1838. He was by occupation a farmer, and at times followed the business of a stage-driver. During the first thirty years of his life he was unusually rugged and healthy. The record in the family Bible states that the father of the patient died with typhoid fever, although, according to the record, he had suffered from "a cancerous humor" for thirty years. The patient's grandfather, three uncles, and one aunt died with cancer. A cousin died from the same disease, and another was suffering from the same affection in 1868, when Dr. Davis procured these facts. None of the brothers or sisters died with cancer.

Some time in 1833 or 1834 the patient drove his coach into Plymouth late at night, and while waiting for his horses to cool off, having previously wrenched his shoulder, fell asleep, with his arm hanging over the back of a chair. On awakening at daybreak he found his arm numb and almost powerless; nor did it ever return to a perfectly natural condition. On the contrary, he suffered pain in the right shoulder, which persisted for two years, gradually attaining great severity, until it was at length constant.

About this time a hard tumor made its appearance on the anterior aspect of the shoulder, over the articulation. The tumor steadily increased, until it attained the size of a water-pail. It was so large that a slight inclination of the head brought the patient's cheek in contact with the tumor. The circumference of the mass, measuring antero-posteriorly over the shoulder and beneath the axilla, was thirty-seven inches.

The patient consulted Dr. R. D. Mussey, who at the time occupied the chair of surgery in the Dartmouth Medical College. Dr. Mussey diagnosticated the case as "*osteo-sarcoma*," but considered the operation too formidable to be undertaken, and therefore declined it. Dr. Amos Twitchell, of Keene, N. H., another distinguished surgeon, examined the patient, confirmed Dr. Mussey's diagnosis, and concurred in the impracticability of the operation. Dr. John C. Warren, of Boston, gave a similar opinion.

Meantime, the disease had involved the humerus, scapula, and clavicle. The immense mass began to degenerate, and in January, 1836, several openings formed, from which a thin, sero-sanguinolent fluid escaped. After this the pain diminished, but the discharge rapidly increased. A cavity formed, which was estimated to be about as large as a two-quart basin. There were twelve opening on the antero-superior aspect of the shoulder communicating with this cavity. Through these there was a copious discharge resembling colloid, but mingled more or less with pus, blood, and degenerated osseous tissue. The openings finally coalesced, forming one large one, about five inches in diameter. The discharge now ranged from a pint to a quart in the twenty-four hours. The opening being at the upper part of the cavity, the débris could only be removed by raising the body of the patient up erect, and then bending the trunk far forward until the contents were evacuated. On one occasion the whole osseous framework gave way, leaving the arm hanging by the integument, muscles, etc.

Meantime, the patient was confined to the house He lost appetite and flesh, until he was reduced to the last degree of emaciation. It was believed that the patient could not long survive. It was found, however, that the cavity could not be readily evacuated on account of the opening being at the top of the tumor. My father was requested to see the patient, and either make an opening at the most depending part of the cavity, or else sever the arm so that the dressings could be made more satisfactory, and the patient's comfort be subserved. My father suggested to the patient that a ghost of a chance was better than no chance at all, and advised him to have a radical operation attempted. The patient gladly submitted; but fully realizing the terrible and immediate risk, he made his will, partook of the sacrament, and resigned himself to the knife.

I find no definite record of the operation among the operator's brief notes. Dr. Andrew McFarland, for many years the accomplished superintendent of the Illinois State Hospital for the Insane, was a student of my father, and witnessed the operation.

In a communication, dated Dec. 5, 1868, Dr. McFarland writes as follows: "The incidents of the operation are marvellously distinct in my mind. Cummings was a stage-man on a route from Plymouth to Concord. In bridling a horse, some months before the disease appeared, he had wrenched the shoulder, and the disease, which we then used to term '*osteo-sarcoma*,' was the result, involving both the scapula and clavicle. The disease was very far advanced before it came under your father's notice; and his decision in regard to the operation, and also his performance of it, were both *immediate*. The patient, a middle-aged man, was at the house of his father, in Plymouth village. Dr. Samuel Rogers was his attendant. There were present at the operation, besides Dr. Rogers, Dr. Long, of Plymouth, Dr. Wright, of Holderness, and Dr. Whipple, of Wentworth. Your father was attended by his retinue of students—Garland, T. R. Crosby, Arrias (a German Jew from Paramaribo, S. A.), and myself. The nurse of the patient was a Mrs. Willoughby, whom I remember chiefly for the noiseless quietude of her step in contrast with her perfectly elephantine proportions. The subclavian artery was controlled by the handle of a large key in the hands of Dr. Whipple. Dr. Wright managed the sponges. Dr. Long, then in ill health, was a spectator. The incision was the length of the clavicle; but what direction the lines took over the scapula I do not remember. I do not recollect whether the whole clavicle was taken away, but think it was. The hemorrhage was comparatively slight.

The operation was a perfect success,—very little of the incisions but what healed by the first intention; and from the time of the operation in March, till June, the patient changed from the extreme stage of emaciation to an avoirdupois of nearly two hundred. He came before the New Hampshire State Medical Society in June, greatly rejoicing in the respite he had got even then."

I may add to this record, that the operator himself stated that he isolated and tied both the subclavian artery and the subclavian vein before dividing them. The whole tumor weighed twenty-five pounds after removal. Dr. Geo. W. Garland, a distinguished medical man, of Lawrence, Mass., who read his profession in my father's office, was also present at the operation.

Under date of Dec. 22, 1868, in response to my inquiries, Dr. Garland wrote me a letter, from which I quote the following: "The operation was simply awful: no ether, patient attenuated to the last extremity, with eyes sunk in their orbits, face lean, rough, and wild in its expression; at every touch of the knife gave a look of agony not equalled in its effect on those who witnessed it by even the sardonic grin of death itself. So frightful was the whole scene, and so affecting, that when the operation was concluded there was no one in the room but your father and myself. The operation was commenced with the expectation that the neck of the scapula and arm only need be removed; but on opening the joint freely, it was obvious that the entire scapula must be removed, or the operation be abandoned. After a moment's conference Dr. Crosby proceeded to remove the scapula, and the outer three-fourths of the clavicle. The flaps were antero-posterior, and I think covered the exposed surface. Owing to his extreme leanness, the motion of the ribs during respiration was an anatomical expression worth the seeing. Of the subsequent treatment I have no definite recollection, only that it was wholly sustaining."

All accounts agree that the shock following this operation was terrific. The operation and dressing of the wound consumed thirty minutes. At the end of the first fifteen minutes the patient lost consciousness, and became pulseless, with cold extremities, etc. He did not become fully conscious for twenty hours.

Mr. Samuel C. Heath, a neighbor who watched with the patient on the night following the operation, says: "I sat up that night. He was delirious most of the time. Stimulants were freely used,—twelve to sixteen ounces of whiskey being given him during the night. The next day he appeared much better, and from this time gained strength rapidly. He began to sit up within two weeks, and got out of doors in some seven or eight weeks after the operation."

In June following the operation, Cummings was to all appearance a healthy man. The cicatrix was fifteen inches in length, and seemed entirely free from induration. During July, however, the disease recurred in the cicatrix, and the tumor soon attained the size of a large tea-cup. This was removed by my father some time in August, and the wound cicatrized in the most amiable manner.

As a proof of the patient's entire recovery, it is remembered that in the autumn following the operation he cleared three acres from bushes, and sowed it with rye. In the winter another tumor, not quite as large, developed in the cicatrix, and was removed early in 1837. No more tumors appeared, and in the following summer he was able to carry on his farm, working most of the time. He remained fleshy and in perfect health for a year. In April, 1838, he was seized with an attack of paraplegia, from which he suffered until July 6th, when he died. The principal operation in this case was performed early in March, 1836, and the patient survived until July 6, 1838,—a period approximating two years and four months. No autopsy was obtained, but my father always entertained the opinion that the paraplegia was due to a malignant deposit about the lumbar spine. In reviewing the literature of the subject, I find that operations involving the removal of the arm, scapula, and clavicle are of comparatively recent date, and the number limited.

Dr. Stephen Rogers, of New York, published in the *American Journal of Medical Sciences* for 1868, a tabular statement of exsections of the scapula, which covered all similar cases to that which I have narrated. This admirable table* of Dr. Rogers, which has been extensively quoted in English and German works, is believed to cover all recorded cases of a similar character up to 1868. Dr. Otis, of the Surgeon-General's office at Washington, has investigated all subsequent cases that have been recorded, and I am happy to acknowledge my indebtedness to both these accomplished surgeons for the material which they have placed within easy reach of my hand.

I shall briefly enumerate the operations involving the removal of the arm, scapula, and more or less of the clavicle, in their chronological order. Several instances are on record where the entire arm and scapula were removed; but these do not come into the category of operations similar to the one I have just recorded, as the clavicle was left, and I therefore omit them.

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* This table, with authorities cited, and additional cases, was republished in the *New York Medical Journal* for February, 1870.

1836.—D. Crosby, then living at a town now known as Laconia, N. H., removed the entire arm, scapula, and three-fourths of the clavicle, at one operation, for an enormous *osteo-sarcoma*. Patient entirely recovered, and died with paraplegia twenty-eight months after the operation.

1837.—R. D. Mussey, then living at Hanover, N. H., reported in the *American Journal of Medical Sciences*, 1837, vol. xxi., p. 390, an operation involving the removal of the scapula and clavicle for malignant disease. Nineteen years before, he amputated at the metacarpus, and six years previous to the last operation, at the shoulder-joint. The patient was forty at the last operation, and thirty years afterwards he was living and in good health.

1838.—Amos Twitchell, of Keene, N. H., removed the entire arm, scapula, and part of the clavicle for malignant disease, but never reported it. His accomplished nephew, Dr. Geo. B. Twitchell, writes me as follows in regard to his uncle's operation: "I can only say that he did remove the entire scapula, arm, and part of the clavicle at one operation, in the winter or early spring of 1838. I came to study with him in June, 1838, and the operation was performed a few months previous. I have frequently heard him speak of the operation. It was perfectly successful, so far as the operation was concerned, but the patient died some six months afterwards of the malignant disease.

G. McClellan removed from a boy of seventeen the scapula, arm, and part of the clavicle with a fatal result. The case is reported, and the preparation figure in McClellan's *Principles and Practice of Surgery*, Philadelphia, 1848, p. 412. Dr. McClellan claimed that his operation was the first of its kind in the history of surgery,—a claim which, as I have shown, was not well founded.

Gætani Bey, in the *Memoirs of the French Academy of Medicine*, describes a disarticulation of the shoulder, with extraction of the scapula, and resection of the clavicle, in the case of a lad of fourteen years, who recovered. This operation has been erroneously ascribed to Larrey.

1842.—Prof. Rigaud removed scapula and outer end of clavicle eight months after amputation at the shoulder-joint. The disease was *osteo-sarcoma*, and the patient remained well three years after last operation. This case was published in the *Strasburg Medical Gazette* for 1844.

1860.—Niepce removed left arm, scapula, and clavicle from a man thirty years of age, injured by machinery. The patient recovered, and the case is reported in the *Bulletin of the Academy of Medicine*, 1864–5, vol. xxx., p. 723.

A. Lucke, in the *Archives of the Surgical Clinic*, vol. iii., p. 306, published in 1862, relates that Prof. B. von Langenbeck, having exarticulated the humerus in the case of a man twenty-three years of age, on the recurrence of the disease extirpated the scapula and an inch and a half of the clavicle. The disease was *osteo-sarcoma*, and the patient survived eighteen months.

W. Busch removed the scapula and part of the clavicle from a young girl whose arm was previously amputated for cancer, and the patient recovered. This case is reported in *Lehrbuch der Topographischen Chirurgie*, 1864, Abth. iii. s. 19.

1863.—J. Syme removed from Mr. K——, aged forty, the arm, scapula, and portion of the clavicle. This case is reported in *Syme's Brochure*, entitled "Excision of the Scapula," Edinburgh, 1864, p. 30.

1864.—G. Buck removed the scapula and part of the clavicle, the arm having been removed by a previous operation. The patient recovered from the operation, but died from a recurrence of cancer some months afterwards. An account of this case was published in the *N. Y. Medical Journal*, 1869, vol. viii., p. 440.

Also, 1863 and 1864.—J. S. Bird, in the *Lancet*, 1868, vol. ii., p. 696, reports the case of Ellen L——, injured by a fall, in whom two operations were performed in 1863–4. The head of the humerus, the entire scapula, and part of the clavicle were removed.

1867.—Sir W. Fergusson removed from a man forty years of age, the arm, scapula, and part of the clavicle. A tumor, resulting from an injury, rendered the operation necessary, and the patient died on the third day. The case was published in the *Medical Times and Gazette*, 1867, vol. ii., p. 465; also in the *Lancet*, 1867, vol. ii., p. 552.

1869.—P. H. Watson reports in the *Edinburgh Medical Journal*, 1869, vol. xv., p. 124, "an amputation of the scapula, along with two-thirds of the clavicle, and the remains of the arm."

These are all the cases involving the removal of the arm, scapula, and more or less of the clavicle, that I have been able to derive from the very extended researches of Drs. Rogers and Otis, which I am inclined to think have been nearly if not quite exhaustive in the premises.

From these records, it would seem that my father is entitled to the credit of priority in this operation; and it is certainly creditable to his pluck that, called to do only a slight palliative operation, he decided on the instant to do a new and capital operation in surgery. The fact that three eminent surgeons had decided the operation to be impracticable, and the desperate constitutional condition of the patient, would have intimidated a young surgeon possessing less confidence in himself. This was, however, characteristic of the operator. My father did almost all of the great operations in surgery before seeing them done, and repeated them many times, with exceptional success. It is a remarkable fact that the three first operations of this nature were done within two years by New Hampshire surgeons,—Crosby, Mussey, and Twitchell,—in the order in which their names have been enumerated.

In all the cases cited save two, not over three-fourths of the clavicle was removed. The majority of the operators have seemed to prefer retaining that portion of the clavicle which gives origin to the outer head of the *sterno-cleido-mastoid* muscle. In Niepce's case, however, and in that of Gætani Bey, the whole clavicle was removed, although Niepce's operation was done for an injury, and not disease.

If I have seemed to be unnecessarily prolix in reporting my father's case, the society will, I am sure, pardon it,—first, because the report was of necessity made up from many diverse sources; and second, because my heart was warmed with filial devotion in this grateful task, all the details of which have seemed to bring back

> "the touch of a vanish'd hand,
> And the sound of a voice that is still!"

Appointments.—Dr. Charles F. Parkes has been elected to the chair of anatomy in the Rush Medical College, and Dr. H. A. Johnson has been made Professor of Clinical Medicine in the Chicago Medical College.

New York Obstetrical Society.—At the stated meeting of this Society, held Nov. 2d, Dr. T. Gaillard Thomas was elected *President*; Dr. A. Jacobi, *First Vice-President*; Dr. C. C. Lee, *Second Vice-President*; Dr. Paul F. Mundé, *Recording Secretary*; and Dr. Emil Noeggerath, *Corresponding Secretary*.

INTEMPERANCE AND DIPSOMANIA AS RELATED TO INSANITY.

By EDWARD C. MANN, M.D.,

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[Read before the meeting of the "American Association for the Cure of Inebriates," held at Hartford, Conn., Sept. 28, 1875.]

In accepting an invitation to read a paper before you to-day, I do so fully conscious that most of the gentlemen composing this Association have had far greater opportunities for studying this specialty than I have enjoyed. I shall, therefore, briefly present the subject to you as it has appeared to me during my connection with the asylum which I have the honor to represent. I think it impossible to estimate the complex influences that intemperance exerts upon the production of insanity, and different authorities differ very much in their opinion on this subject. All agree, however, that it is intimately connected with and is one of the main causes of insanity. Lord Shaftesbury, in his evidence before the Select Committee on Lunatics, in 1859, expressed his opinion that fifty per cent. of the cases admitted into English asylums are due to drink. This is a rather large estimate, but many superintendents of foreign asylums have estimated the admissions from intemperance at twenty-five per cent or higher, including not only the proximate but remote cause of the disease. This percentage will be largely increased if we take into account the great number of cases in which the intemperance of parents causes the insanity or idiocy of their offspring. I have traced intemperance as a cause in almost every case of general paralysis that has fallen under my notice, and others have observed the same thing. M. Lunier estimates that fifty per cent. of all the idiots and imbeciles to be found in the large cities of Europe have had parents who were notorious drunkards. Out of 350 insane patients, admitted during two years at Charenton, in Europe, insanity was attributed to drink in 102 instances. I think, from my examination of the statistics of all the insane asylums, both here and in Europe, that it is not too much to say, that fully one-fourth of all the admissions are due, either proximately or remotely, to intemperance.

I pass now to the consideration of dipsomania, as a form of physical disease—as insanity.

Dipsomania has been aptly defined as "an uncontrollable and intermittent impulse to take alcoholic stimulants, or any other agent, as opium, or haschish, which causes intoxication—in short, a methomania." We must distinguish between this and the physiological state, in which the individual merely chooses to indulge in liquor to excess. The great question of importance is to distinguish the two states or conditions, when the result, intemperance, is the same. We must observe whether there are symptoms in our patient which can be referred to primary disease of the nervous system. We must examine for hereditary influences, which, when present, lead us, of course, to suspect disease. Early development of the appetite for stimulants points in the same direction; but the great diagnostic point attending the *disease*, is the *irresistible impulse* by which the patient is impelled to gratify his morbid propensity, being, during the paroxysm, blind to all the higher emotions, and pursuing a course against which reason and conscience alike rebel. It is frequently seen that these paroxysms are preceded by considerable disturbance of the nervous system. The patient perspires and is sleepless, uneasy and prostrated, and so craves some stimulant.

Between the paroxysms he is different from a common drunkard, in oftentimes disliking exceedingly all stimulants, and is then a useful member of society. Dipsomania has been described under three forms: acute, periodic, and chronic. The acute form is the rarest, occurring only after exhausting diseases or excessive venereal indulgence. The periodic form is much more frequent, and is observed in persons who have suffered injury to the head or spine, females during pregnancy and at the catamenial period, and also in men whose brains are overworked. This form is frequently hereditary, and consequently proportionately difficult of cure. These patients may abstain for weeks and months from all stimulants, and may, during this interval, positively dislike them. At last, however, the patient becomes uneasy, listless, and depressed; is not inclined to apply his mind; and, finally, begins to drink, and continues until intoxicated. It is an interesting and rather remarkable fact, that with this class of cases, as Charles Lamb, in his "Confessions of a Drunkard," pertinently remarks, "to stop short of that measure which is sufficient to draw on torpor and sleep, the benumbing apoplectic sleep of the drunkard is to have taken none at all. The pain of the self-denial is all one." The patient continues this course for ten days, or perhaps a fortnight, and then bitterly regrets his fall. This often runs on, if not checked, into mania, and lapses into dementia. The last and most common is the chronic form; and I have always found this to be the most incurable form of the disease, as the patients are incessantly under the irresistible desire for alcoholic stimulants. I think the latter class of cases require constant seclusion in an asylum, if they wish to be free from intoxication, as a discharge or leave of absence is always followed by a repetition of the same acts. In a majority of cases of this nature, we find hallucinations of sight and hearing, which oftentimes produce very painful moral impressions, and at times even great terror in the patient. Cases of delirium tremens are excluded in these remarks. These patients manifest confusion of thought, perversion of feelings, suicidal tendencies, tremors of the facial muscles and tongue, anæsthesia of the extremities at times, and very often paralytic symptoms, going on to general paralysis. The subject of hereditary metamorphosis of the diseases of the nervous system is of great importance in this connection. As a result of intemperance in the progenitors, we find transmitted to the offspring allied, but different forms of neuroses. It may be dipsomania, epilepsy, chorea or actual insanity, or a proclivity to crime. It is, at all events, an aptitude for some form or other of nervous disorder, the particular form being often determined by causes subsequent to birth. The law of hereditary transmission applies equally to the victims of dipsomania as well as to the other insane classes, and is to be studied, I think, in three divisions, according as it is manifested. First, in predisposition or simple aptitude, the result of a defective organization and a weakened or diseased nervous system, as a result of which, the possessor is predisposed, or has a tendency, to seek for the relief obtained by alcoholic stimulants when laboring under physical or mental depression; second, in the latent state or germ of the disease; and, third, in the actually developed disease. The first of these states, the predisposition or aptitude, being hereditary in a strong degree, is universally acknowledged to be the most difficult to eradicate, and requires the wisest sanitary conditions adapted to both mind and body. Most people doubt the existence of the second or latent state or germ of the disease, ignoring the law of progressive development, and such persons find it difficult to believe that dipsomania coming on in maturity, as a result of ill-health, mental shock, etc., may have originated in intemperance in the parent or grandparent. Yet this is a fact. One very important organic law, which should be universally understood in this connection, is, that morbid impulses and characteristics and traits may disappear in the second generation and break out with renewed intensity in the third, although a tendency or predisposition may be transmitted to the offspring, and, under good hygienic and other favorable circumstances, die out and fail to be transmitted any further. I have remarked in my experience with the insane, whether the exciting cause be intemperance or something else, that the cases most unlikely to recover are those where the insane temperament or diathesis is clearly manifested, and where the predisposition to disease is inherited. Such patients, although they may have lucid intervals, rarely if ever entirely recover. I think the insane impulses to drink, which overcome all the efforts of the individual who inherits a tendency in this direction, present the same indications for treatment as do the suicidal and homicidal impulses, namely, seclusion from society and the necessary restraint, in an asylum.

I do not agree with that class of persons who hold that under all circumstances the dipsomaniac is to be treated as an invalid, with the utmost gentleness and forbearance, and then, with the strangest perversity, turn round and tell you that inebriety is no excuse for criminal actions, and fine and imprison the unhappy man who has been driven into the debauch by an irresistible craving for drink, when properly he should be regarded as insane, and should be sent to an inebriate asylum for treatment and cure. Our laws at present fail lamentably in preventing intemperance, and this is due in a great measure to the false view in which this disease is held by the judiciary. The different forms of dipsomania correspond in their manifestations, and oftentimes in their causes, to other cases of mental disease, and cannot properly, I think, be separated from them as regards the fact of the disease. Dipsomania often appears as a result of the same causes that operate in the production of other types of mental disease, such as ill-health, severe mental shock, blows on the head and spine, and sunstroke.

We are dealing in both cases with abnormal cerebration; in the one case associated with mania, melancholia, dementia, and idiocy; and in the other, with a depraved alcoholic appetite—an irresistible impulse which the mind seems powerless to control; an insane impulse, just as surely as a homicidal or a suicidal impulse is an insane impulse. I think that when our cerebral pathology, which is as yet in its infancy, becomes more generally understood, it will be found equally applicable to this as to other forms of insanity. The terrible insane craving for alcoholic stimulants is often the result of a lowered vitality or abnormal organic development of the nervous system that has descended from generation to generation, gaining in intensity until it manifests itself by the complete loss of self-control and active inebriety in children and grandchildren, after they once taste intoxicating liquors and indulge in them. The blunted moral perception which so many inebriates exhibit, and which renders them peculiarly liable to a relapse after they leave an asylum, is to be regarded in the same light, I think, as the perverted moral sense in moral insanity.

In every institution for the insane, we find inmates who exhibit no obvious intellectual aberration or impairment, the *moral* faculties being deranged, while the *intellectual* faculties remain apparently in their normal condition. The manifestations of moral insanity may be a simple perversion of some sentiment or propensity, under certain exciting causes; and I think this exactly comprehends cases of dipsomania with loss of self-control and perversion of the moral sense. The person, of course, is aware that the act is wrong in both instances, but the control which the intellect exercises over the moral senses is overborne by the superior force derived from disease. I have been told many times, by both insane patients and dipsomaniacs, that the feeling on the one hand to commit some insane deed, and on the other to give way to alcoholic appetite, was contemplated in both instances with horror and disgust, and at first successfully resisted, until at last, having steadily increased in strength, it bore down all opposition. What can be a more powerful argument in favor of the disease theory of dipsomania?

Pathology of Inebriety.—The basis of our cerebral pathology is the fundamental principle, that healthy mental function is dependent upon the proper nutrition, stimulation, and repose of the brain; and upon the processes of waste and reparation being regularly and properly maintained. We know that the cerebral cells are nourished by the proper and due supply of nutritive plasma from the blood, and that this is essential to healthy function; and, indeed, the ultimate condition of mind with which we are now acquainted consists in the due nutrition, growth, and renovation of the brain-cells. If now we take into the system an amount of alcohol that causes the blood plasma to convey to the brain-cells a noxious and poisonous, in place of a nutritive substance, stimulating the cells so as to hasten the progress of decay and waste beyond the power of reparation and renovation, and impressing a pathological state in them, we must inevitably have resulting a change of healthy function, and a certain amount of disease induced. Owing to the abuse of alcohol, we have resulting a change in the chemical composition of the cerebral cells from the standard of health, which is the foundation of organic disease, as it prevents and interrupts healthy function. As a result of the overfilling of the cerebral vessels or hyperæmia of the brain from the long-continued use of alcohol, we have at first symptoms of irritation, due to increased excitability of the nerve-filaments and ganglion-cells of the brain. The symptoms of exhaustion and depression occurring at a later stage are due to lost excitability of the nerve-filaments and ganglion-cells of the brain, owing to a want of the proper supply of arterial oxygenated blood to them. This is caused by the excessive cerebral hyperæmia, the escape of venous blood from the brain being obstructed; the result being that no new arterial blood can enter the capillaries. We may have apoplectiform or epileptiform attacks and paralysis occurring in the course of these cerebral hyperæmias, and they may be due either to obstructed escape of venous blood or to secondary œdema of the brain, in which transudation of serum takes place into the perivascular spaces and interstitial tissue of the brain, with consequent anæmia.

We know comparatively little yet respecting the physiology and pathology of the nervous system; and consequently comparatively little information has been gained regarding the morbid changes that take place in the brain and its appendages, as a result of the abuse of alcohol. Such knowledge in this direction as we do possess, shows that analogous changes take place in chronic alcoholism and chronic insanity—namely, atrophy and induration of the brain, and thickening and infiltration of the membranes. The nerve-cells have also been found to be the seat of granular degeneration in some instances, and some histologists have claimed to have discovered fatty degeneration of the various brain elements. Respecting the latter changes, Dr. J. Batty Tuke, of Edinburgh, who is one of the most successful of modern investigators in the department of morbid cerebral histology, gives it as his opinion that the application of the various tests for oil will fail to detect the presence of the so-called "free oil-globules" in the substance of the convolution, which he considers to be but the scattered débris of granular cells. According to the great pathologist, Rokitansky, we find thickening and increase of volume of the pia mater and arachnoid, and permanent infiltration of the former and a varicose condition of its vessels, as a result of continued abuse of alcohol. As the state of the pia mater is unquestionably closely related to the higher functions of the brain, the latter must suffer more or less as the result of such an abnormal condition of the former. If there exists a permanently congested and thickened state of the pia mater, it is extremely probable that if it becomes suddenly turgid and hyperæmic as a result of severe emotional disturbances, we shall have, resulting from the increased pressure on the brain, coma, epileptiform and apoplectiform attacks, and other grave nervous symptoms. It is fair to conclude that in the majority of cases the first changes that occur are repeated attacks of active cerebral congestion, followed by chronic cerebral congestion and chronic cerebral meningitis; and that, as the disease assumes a chronic form, the brain takes on a secondary change and becomes anæmic, atrophied, and indurated—a state allied to cirrhosis. In these cases of chronic meningitis, proceeding to atrophy and induration—of which I have seen quite a number—the prominent symptoms have been impairment of memory, dulness of intellect bordering on dementia, trembling of the limbs, tottering gait, hesitating, slurring speech, and other symptoms indicative of gradually progressing paralysis. In two cases of general paralysis due to drink, in which I made a post-mortem examination, paying careful attention to the state of the brain and spinal cord, I found in both instances thickening and opacity of the membranes, with adherence to each other and to the brain, showing the existence of chronic meningitis. The brain was in both cases anæmic and indurated, and in one case there was dilatation of the lateral ventricles with considerable effusion. The spinal cord was atrophied and indurated, and there was considerable fluid in the spinal canal in one of the cases, and also at the base of the brain. Upon hardening the spinal cord and making thin sections, and employing carmine staining, to demonstrate the structural relation of the cord more clearly, I found, upon microscopical examination, that there was atrophy and loss of the nerve-elements of the posterior columns, with a new formation of connective tissue. In making autopsies, where the cause of death has been owing, directly or indirectly, to the abuse of alcohol, I have found cirrhosis of the liver, fatty and waxy liver, cancer of the liver, chronic Bright's disease, cancer of the stomach, and cancer of the bladder, and, in one case, a gummy tumor of the dura mater. It is doubtless true that in many cases we shall find upon examination no pathological changes in the brain, that are demonstrable by existing knowledge and appliances; but I think we should rather doubt the quality of our resources of observation than doubt the existence of pathological changes in this most delicate, sensitive, and complex of all organs, when we have observed during life its functions to be obviously perverted, if not destroyed.

Treatment.—Having endeavored to prove that dipsomania is a physical disease—that it is, in fact, a distinct type of insanity—I pass, in conclusion, to the consideration of the question of the care of inebriates. I am strongly opposed to inebriates being confined in insane asylums, as they are very numerous, rapidly increasing, and a troublesome class of patients, and are a disturbing element among insane patients. They need to be in an asylum adapted in construction, location, and surroundings to their special needs. Most of this class of patients do not think that they should be placed in an insane asylum, and do not adapt themselves to their position. They are constantly demanding privileges which cannot be granted, and chafe under the restraint which is imposed upon them. They do not assimilate readily and pleasantly with the other class of patients, but domineer over and ridicule them. They are full of mischief when in an insane asylum, and interfere materially with proper discipline. Of course there are exceptions, but this is, I think, the general rule.

Dipsomania is more troublesome to manage than simple insanity, and requires, I think, more perfect discipline, both moral and physical, than the latter. In the treatment of inebriates we have primarily to build up and restore shattered constitutions and broken-down nervous systems. We have a class of patients to deal with whose digestive powers are weakened, whose appetite is impaired, whose muscular system is enfeebled, and whose generative function is often decayed; the blood is impoverished and the general nutrition disordered. They are indirectly predisposed to the acquisition of nearly all diseases, as they have, by long indulgence in alcohol, lessened the power of resisting their causes. We have to deal with the results of a toxic poison, which has resulted in more or less pathological change in the brain and nervous centres. We have also to deal at times with various complications proceeding from the abuse of alcohol, such as cirrhosis of the liver, gastritis, epilepsy, various forms of dyspepsia, and, in some cases, with Bright's disease. We must place our patient under the most favorable hygienic influences, provide for him cheerful, tranquil, and pleasant surroundings, repress cerebral excitement, procure sleep for him, and we must also give him plenty of good, nourishing food and an abundance of fresh air and exercise. I believe that to this disease, as to insanity under other forms, the remarks of Sir James Coxe are equally applicable, that "purgatives, hypnotics, anodynes and tonics are useful auxiliaries; but a comfortable meal is the best of sedatives, and abundance of exercise the best of hypnotics." All remedial measures are, I think, inferior to wholesome exercise of body and mind in this disease. We must provide amusements of every kind, and encourage patients to work. We must stimulate inertia, resist every kind of perverted feeling, and check morbid impulses; and at last we may, if we exercise a wise care and discrimination, restore our patients to their homes and to society, permanently cured.

A NEW FOOD.—A society of rat-eaters has been formed at Gembloux, in Belgium. The members meet once a week, and the proceedings are wound up by a grand banquet, in which preparations of that delicious animal hold a prominent position. This society, following the example of the Hippophagic Society, wishes to destroy the prejudice attached to the flesh of these little animals.

In the furtherance of this object, a learned Belgian has been at the pains to discover that the ancient Romans formerly ate gray mice seasoned with acorns and chestnuts. Buffon relates that the inhabitants of Martinique eat mice, and are especially fond of musk-rat.

Progress of Medical Science.

Carbolic Acid Poisoning treated by the Intravenous Injection of Ammonia.—The following case is of interest, as showing the poisonous action following a known dose of carbolic acid, and the means which were apparently successful in saving life. An anæmic woman, six weeks after confinement, was received into the Bristol Royal Infirmary, for an abscess about the hip-joint. In some way she managed to possess herself of a mixture of carbolic acid and linseed oil (1–10), and swallowed of it a measured fluid ounce, which therefore contained about fifty grains of the acid. Twelve minutes afterwards the house-surgeon saw the case; the woman was then able to understand and to reply when spoken to sharply; the skin was moist, the face dusky, the pulse weak, and the pupils slightly dilated. A stomach-pump was immediately put in use and the stomach was washed out continuously with warm water, until it exhibited no signs of the oil or smell of the acid. The bad symptoms, however, continued to increase in intensity, while the pulse became rapid, irregular, and hardly perceptible. At the end of three-quarters of an hour coma was complete, the face perfectly livid, the skin bathed in sweat, and the muscles of the soft palate and tongue so relaxed that it was necessary to have the latter organ constantly drawn out to allow of breathing. Death being apparently at hand, it was decided to inject ammonia into the veins; and accordingly two drops of the strong liquor ammonia, diluted in water, were injected into a vein of the forearm. The effects of this remedy soon showed themselves, for the radial pulse soon became perceptible, and the other symptoms slightly improved; still, the effect was transient, and accordingly, fifteen minutes later, the injection of an equal amount was again made, and again with marked benefit. After fifteen minutes a third injection was made. Within another half hour consciousness had returned. On recovery she complained of no pain except in her tongue, and improved gradually, though she suffered some days from gastric catarrh. The writer thinks this is a case illustrating the fact that where there is no direct antidote for the poison the injection of ammonia may be of great value, sustaining, as it does, the powers of life for a few hours, until the critical period has passed.—*The Lancet*, Sept. 25, 1875.

Acute Endocarditis in Tuberculosis.—Acute endocarditis has been described in the majority of the virulent or infectious diseases, particularly in variola, scarlatina, and measles, in malarial intoxications, puerperal fever, diphtheria and septicæmia. M. Perraud has had occasion to observe it also in tubercular phthisis, and has arrived at the following conclusions:

1. Acute tuberculosis is to be counted among the number of infectious diseases, in the course of which acute endocarditis may manifest itself.

2. Usually this endocarditis does not have time to develop itself fully, the tubercular disease carrying the patients off before the valvular lesion has attained an advanced degree. As a rule, at the autopsy, only little nodules are found, more or less pronounced, and which have already been described by authors in a certain number of the infectious diseases, and are very different from the tubercular granulations, very few examples of which have been observed.

3. When the tuberculosis has a sufficiently long duration, the endocarditis may attain a more advanced development, and so interfere with the action of the valves, as to give rise to physical or functional cardiac signs.

4. It is then generally the vegetating form of acute endocarditis that is observed. The writer has never in these cases encountered the ulcerative form. With regard to the sclerosis of the valves, which is so common in adults after acute rheumatism and which develops slowly, he has never observed it in tuberculosis, and is of the opinion that it must be very rare in this affection.—*Lyon Médical.—Gaz. Méd. de Paris*, Aug. 7, 1875.

Obstinate Intermittent Fever Cured by Steam Baths.—Dr. Finkelstein, of Jassi, in Roumania, states that intermittent fever is exceedingly prevalent in that country, and that while most cases yield to quinine in large doses, and to arsenic, obstinate cases sometimes occur which defy all ordinary treatment. He instances his own case as one of these. First attacked in 1865 with a quartan he was benefited by quinine, but had relapses whenever he stopped taking it, until he went to the mountains. He was then free from it for six years, until 1871, when he settled in Jassi. From this time until 1874 he was constantly subject to attacks—the paroxysms lasting from seven to eight hours. He took quinine and Fowler's solution, which had good temporary effects; also piperin, carbolic acid, and tincture of eucalyptus globulus, all without effect. On September 4, 1874, he had the premonitory symptoms of a chill, and it occurred to him that as the process always ended in perspiration, if he could induce free action of the skin an earlier defervescence might set in. He determined to take a steam bath at once, and before he could get his clothes off his teeth were chattering. His pulse was then 96. On entering the hot chamber its temperature was 102.2° F. He directed the heat to be increased, and when it reached 105° he began to have an agreeable feeling of warmth, and broke into a perspiration. Pulse then 100. After fifteen minutes, beginning to feel some oppression in the chest, he left the hot chamber and took a cold douche. Finding, however, that the chill had not left him entirely, he returned to the sweating room, the temperature of which had meanwhile risen to 107.6°. He remained there for twenty-three minutes longer, the temperature of the room reaching 111.2°. At this time he began to feel dizzy, and at once left the hot room, had himself well rubbed and douched, and at the end of the whole process, which lasted nearly an hour, he had no chilly feelings, and his pulse was 80, sinking to 70 after he was dressed. Six months had elapsed when he wrote, and he had had no return of the disease, and had taken no medicine. Dr. F. reports equally good success in the treatment of a similar case, in a patient of his, whom quinine and arsenic would not cure.—*Berl. klin. Woch.*, Sept. 6, 1875.

Carbolic Acid in Diabetes.—At the session of the General Surgical Society of Cologne, held on February 15, 1875, Boese reported a series of observations made on a case of diabetes mellitus, which had been treated with carbolic acid. A quantitative estimate was made daily of both the sugar and urea. The patient was kept on an abundant ordinary mixed diet for sixteen days; then for fourteen days on a strict diabetic diet; and then for a further period of thirty-one days while on the same diet carbolic acid was given in the way recommended by Ebstein and Müller. For a further period of fourteen days the carbolic acid was suspended, while the same diet was continued. The patient then took the acid again until discharged. It appeared from the analyses, that on beginning the diabetic diet the quantity of urine and of sugar diminished, and remained so while the amount of urea continued at about the same figure. On giving the carbolic acid, the amount of urine and of urea remained unchanged, but the sugar diminished by one per cent. to increase by that amount when the acid was discontinued, and diminish again when it was resumed.—*Berlin. Klin. Woch.*, Sept. 13, 1875.

Statistics of Vesical Calculi.—Dr. Ultzmann, of Vienna, has examined eighty-three specimens of calculi, belonging to Prof. Dittel, and has grouped the interesting points regarding them as follows: He found 28 of them composed of uric acid, 10 of oxalate of lime, and 45 of phosphates. Those in the first group consisted chiefly of uric acid, with some urates. In some also there were thin layers of earthy phosphates and oxalate of lime. The nucleus was free uric acid in 21 cases, in two oxalate of lime, while in five it could not be made out owing to the small size of the fragment. In one case there were seven stones, in one six—in fact six pieces from a previous lithotripsy—in one three, in one two, and in the remaining twenty-four but one stone. The weights ranged from one ounce and six drachms to ten grains. The color of these stones was a shade of yellow, unless incrusted with the gray or white earthy phosphates. The surface was either smooth or slightly uneven.

The oxalate of lime calculi consisted mainly of this salt, with occasionally alternating layers of uric acid or phosphates. The nucleus in some instances was free uric acid; in one it was too small to be estimated. In only one case were there two stones in the bladder. The weight varied between two ounces and fifteen grains. In color they were dark brown or blackish brown. Their surfaces were markedly irregular, resembling a mulberry, even when coated with phosphates. The form was generally spherical.

In case of the phosphatic calculi they were found generally to comprise a mixture of amorphous phosphate of lime, granular carbonate of lime, and crystalline ammonio-magnesian phosphate; the general structure of the stone depending upon the preponderating ingredient. In one case where there were four stones in the bladder they consisted of crystalline phosphate of lime, with ammonio-magnesian phosphate, and were smooth, hard, dark gray, and of polygonal form. The nuclei consisted of such various substances as hair-pins, sealing-wax, pieces of rubber catheter, etc., of lengths reaching as high as four inches, and again of small coagula of blood, and of drops of oil mixed with earthy phosphates; in 7 cases of free uric acid, in 9 of phosphates, while in 21 it could not be ascertained. In one case there were twenty two small stones, in one four, in one three, in two cases there were two, and in the rest but one stone. The heaviest weighed three ounces and two drachms; the lightest five grains. The color was white, grayish, or yellowish white; the surface rough and sandy. In form they were generally long and oval.—*Wiener Med. Woch.*, Sept. 18, 1875.

Tracheotomy in Croup and Diphtheria.—Dr. George Buchanan, of Glasgow, says that (regarding membranous croup and laryngeal diphtheria as distinct diseases) there is a point in both where it is evident that recovery is hopeless and that death from suffocation is certain; and though it is difficult to say when that stage has arrived, he thinks it better to err on the safe side, and acknowledge the inefficacy of medical treatment, after a fair trial, rather than delay the operation until the strength of the child has been almost exhausted by its struggles for breath. He urges upon all physicians, after the medical treatment has been tried and found to be unavailing, and when death seems imminent from suffocation, and not from vital depression or exhaustion, the duty of performing tracheotomy. When the suffocation, in both diseases, depends not only upon an obstruction of the trachea, but also upon an effusion of false membrane or the glutinous fluid which precedes it, into the smaller bronchial tubes, then the case is not one for operation. Owing to the restlessness and noisy breathing of the child, it may be difficult to obtain accurate information from percussion and auscultation, yet there are two valuable signs: the first is the amount and loudness of the stridor, which is always great in proportion to the patency of the small tubes and obstruction in the trachea. The second, and most valuable in his opinion, is inspection of the naked chest. When the obstruction is in the trachea, while the bronchial tubes are free, the respiratory movements are continued with exaggerated energy, but the chest will not respond to the muscular efforts. The result is that at each inspiration the flexible parts of the thoracic walls are drawn in with great force, the intercostal spaces are hollowed, and the ensiform cartilage sucked back. But when the small bronchial tubes, and perhaps the air-cells, are stopped with the viscid or membranous effusion, the muscular efforts are more feeble and the chest remains puffed out. The whole aspect is then that of a child thirsting for breath, but with the lungs already full and themselves unfit for respiration. In this latter case, he never operates; in the former, with every hope of success.

Dr. Buchanan gives the particulars of forty-six cases of tracheotomy in these affections. There were sixteen cases classed as croup, of which six were cured and ten died. Of the thirty cases classed as diphtheria, eleven recovered while nineteen died. The average is nearly the same, viz., about one child saved out of every two and two-thirds operated on; and as the operation was always done when otherwise there seemed no hope of recovery, he thinks it may be safely stated that the lives of these seventeen children were saved by tracheotomy.—*The British Medical Journal*, Sept. 4, 1875.

Traumatic Tetanus successfully Treated by Chloral.—Dr. Ch. P. Coryllos (Patras) reports the case of an insane man, 40 years old, who accidentally wounded himself, with a pointed stick, in the left temporal region. When C. saw him five days after the injury, the wound, which was about an inch long, was painful and the whole region swollen. He observed that the mouth did not open well, and that the head could not easily be inclined backwards. The head was also bent forwards and to the right, while the left orbicularis, levator palpebræ and depressor anguli oris, left-sterno mastoid, omo- and sterno-hyoid muscles were on the stretch. Moreover, general and increasing tetanic contractions began to show themselves. He was given a purge followed by chloral in twenty-grain doses every hour, until four had been taken. He slept well, and the next morning the cramps were less severe. The doses of chloral were increased after a week to 115 grains a day. On the twentieth day two portions of the stick were removed from the wound. During the following night he suffered from priapism and sleeplessness, tried to escape from the house, and had tetanic seizures again. Chloral was given with morphine. He was finally discharged cured at the end of five weeks, after taking in all over five and three-fourths ounces of chloral.—*Allg. Wien. Med. Zeit.*, 4, 1874.—*Rundschau*, Sept. 15, 1875.

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THE APPROACHING CENTENNIAL AT PHILADELPHIA.

Accidental circumstances, dating back to Revolutionary periods, have now made Philadelphia a centre of Centennial attractiveness. Any other city might have had similar honors bestowed upon it, and have claimed them without a contest, had similar antecedents been part of its history; but such relations of intimate connection with the birth of the Republic fell to no other's lot. It has not, therefore, been a matter of surprise that almost all the national medical and scientific associations which are to meet in 1876—and incidentally among these the International Medical Congress—should follow in the current which for one exceptional year is setting toward that city. There has clearly been no alternative for the rest of the country but to yield the temporary and preliminary occupation of the field gracefully, and with a sense of propriety almost akin to duty, to those who, on hallowed Centennial ground, will fitly do the honors of the occasion. Having once conceded this much, we trust that the active sympathy to be tendered from every quarter towards the success of this Congressional undertaking will be manly, cordial, and fraternal. The International Medical Congress must be in spirit and purposes thoroughly national before it can become to any great extent international. In other words, it must be presented to the whole medical world as an outspoken, heartfelt, and sincere greeting from brother to near and distant brother; that the ties of medical fraternity and professional consanguinity may be strengthened and new bonds formed that shall be indissoluble, and far-reaching in all their influences for good. We are assured that our medical friends in Philadelphia are truly anxious for the unanimous co-operation of all efficient agencies towards such a desirable consummation, and that, having once arranged the preliminaries for a successful fruition of the enterprise, of whose inception they early assumed the undivided responsibility, they aim at no local glorification, other than that which naturally attends upon the happy accomplishment of a well-elaborated work. They have only prepared the mould, but the profession at large must fashion it, and give it permanent coloring and consistence. When the Congress shall meet and map out its own line of action, we have no doubt that Philadelphia will modestly retire from any position of over-prominence she may have seemed to occupy up to that period, and will claim no other honors than such as may be voluntarily accorded her by the voice of her welcome visitors and guests.

THE "UNSUCCESSFUL" PRACTITIONER.

In the present number we publish another letter from "Diploma," detailing the experiences of a struggling and unsuccessful practitioner. Although the picture which he draws is by no means an encouraging one for the medical man of the future, we have certainly arrived at the time when the ordinary chances of success should be viewed from a calm and matter-of-fact standpoint. His former letter has excited considerable comment, public and private, and all have agreed in the verdict that there is a "great deal of truth" in the statements given. In the discussion of any subject when fundamental truths are sought after, the more telling the facts, the sooner can conclusions be drawn. Our correspondent will be thanked for the service he has done to his side of the question, in bringing up the whole subject to the surface of fair discussion and independent opinion. It is in furtherance of such motives, and in encouragement of manly and conscientious convictions, that we give place to his lengthy communication.

THE ACADEMY OF MEDICINE AND THE MEDICAL SOCIETIES.

On the 18th instant the New York Academy of Medicine is to hold an anniversary meeting in its new building, where it has now become quite settled, and the exercises, which will vary somewhat from the ordinary course, should insure a large attendance. Since the season of medical gatherings has opened, four of our prominent associations have changed their places of meeting to the Academy building, viz., the Physicians' Mutual Aid Association, the Society for the Relief of Widows and Orphans of Medical Men, the Neurological Society, and the Medical Journal Association. The latter has taken the third floor of the building, which it occupies with its books and journals, while its meetings are held in the parlors on the first floor.

The capacity of the rooms used for society meetings will hardly admit of large gatherings, but they are amply sufficient for the accommodation of our largest societies at the present rate of attendance.

There is yet another argument for the use, conjointly, of the Academy rooms by our principal medical societies aside from that of the community of feeling and the friendships which come from frequent association; that is, the convenience of the members. It requires a considerable degree of enthusiasm to induce a tired man to leave his comfortable easy-chair and cigar on a winter night, and sit for two hours on a hard bench in a close and uncomfortable college lecture-room, to listen to a paper and discussion which he can read at his leisure and ease in his medical journal of the following week. Physicians suffer enough inconveniences from their relations with the public, without enduring self-imposed hardships; and any society which subjects its members to avoidable discomforts will find that the attendance of its members and the choice of its papers will surely diminish.

Correspondence.

GENESIS OF AN EPIDEMIC OF PUERPERAL FEVER.

To the Editor of The Medical Record.

Dear Sir,—In your issue of Oct. 30, is a report of my remarks in the discussion of Dr. Lusk's paper, before the County Medical Society, on the "Genesis of an Epidemic of Puerperal Fever," containing two important errors, which I hasten, with your permission, to correct.

I stated that I placed the twenty-three pregnant women, who were sent from the Bellevue Lying-in Service to Charity Hospital, in pavilions built out upon the grounds which had formerly been occupied by small-pox and fever patients.

In continuation, I am reported to have said: "The *night of the day* they were received *one died*, and the night of the *second day* the *second died* (italics mine). Up to that time nothing had been done in the way of precautionary measures, but at once the clothing was all removed, the *hair cropped*, etc., etc. (italics mine).

What I really said was, that on the day of arrival of these women at the Island, one woman was confined and developed puerperal fever immediately, having her premonitory chill within three hours after delivery. On the second day another woman was confined, and she developed puerperal fever with similar rapidity.

They were both put apart from the other women in a separate pavilion, and the doctor and nurse who had been in attendance were quarantined with them.

Both patients recovered. They did *not* die, as your reporter states—a fact very important to us who treated them, and we hope a matter of considerable pleasure to the patients themselves.

Then, with regard to the prophylactic measures the remaining women were subjected to—he did *not* crop their hair. We simply washed it with the rest of their persons in a carbolic solution.

I should feel very sorry if, from the report of our successful measures in preventing a threatened outbreak of puerperal fever, whose germs were so prominently present and recognized, some one else should, in adopting this plan, deem it an essential part of our system to mutilate the patient by cropping the hair.

It certainly was a very interesting and instructive fact, that these women—who came to us saturated with this puerperal-fever virus, as evinced by the previous history of their class in Bellevue, and corroborated by the sudden incursion of the disease upon those two who were confined within twenty-four hours of their arrival at the Island, before we had adopted any prophylactic measures toward them—were so completely disinfected by the simple measures mentioned, as to render the puerperal septus present almost innocuous; so that its presence was reduced to the minimum of effect, as shown by a slight increase of temperature and pulse rapidity for a few days.

It may be urged in contrariety to this, that the epidemic was on its decline when these women came under our observation, and therefore our success was only apparent, not real. In answer to this I might state, that we have used these prophylactic measures for the last four years in Charity Hospital Lying-in service, with the uniform result of checking outbreaks of fever whenever they threaten, and limiting them when they appear.

I believe that the contagion of puerperal fever is just as limitable as the contagion of small-pox.

I sincerely hope that this subject may again come up for discussion in our medical societies, inasmuch as there are a mass of outlying facts in the experiences of many general practitioners, who generally do not take part in discussions, which, if evolved, would throw considerable light upon some of the geneses of puerperal fever.

Many of us believe that it is one of the diseases of hospitalism, and it would be interesting and perhaps conclusive, if we could show that it is more prevalent in the experience of those who have hospital connections.

Dr. Lusk's statement, that although he was in constant attendance upon the infected in Bellevue, yet he did not have a case of puerperal fever among his private patients, is very important. It tends to prove that either the disease is not communicable through professional attendants, or that some individuals cannot, through some idiosyncrasy, be made its vehicles, the latter of which I believe.

My experience in similar epidemics has been disastrously different from Dr. Lusk's.

I have no statistics to quote, but if an opinion is worth anything that has been gleaned from conversations with many gentlemen in general practice, who are not engaged in hospital services, puerperal fever is infinitely rarer in their private practices than ours.

We know that it is very rare among the poorer tenement classes—those who live in disregard of hygienic rules, and whose lying-in chambers are the abode of want and filth.

These points, if true, are worth considering, and we can only properly approach the nature and cause of this dreaded disease, by eliciting in our societies a *fearless* discussion among members who have no hospital connections, as well as among those of us who have.

Very respectfully,

Walter R. Gillette.

129 West Twenty-third Street.

THE MORAL ASPECT OF SUCCESS IN PRACTICE.

To the Editor of The Medical Record.

Sir,—I have read with much interest "Diploma," "Success," "M. D. V. S.," and "Successful Practitioner," in Nos. 252, 255 and 257 respectively. I sincerely think we cannot spare "Diploma" from our profession, and I will agree to be one of a thousand to "chip in" and carry him a year or two, just for the service he has done in writing that letter, accompanying his departure from our ranks. "Success" criticises him in some respects fairly; he evidently is a better collector than "Diploma," but much his inferior in wielding the pen, and he also partially pleads for a great wrong in our profession. I refer, of course, to our so-called "Medical Schools."

"Successful Practitioner" handles those "high-toned" gentlemen rather roughly, but they have opportunities for defence. I am delighted to see this subject opened by you for discussion.

"Diploma" has told us some *truths*, and told them in an elegant and classical manner.

"Success" has told us nothing new, and "Diploma" anticipated his argument in the first ten lines of his article.

Now I wish to consider this question of our college system aside from its bearing upon the issue of success in life.

I wish to place it upon a higher plateau, for I religiously regard it as *the one* great malady for us to treat; and I appeal through you to those who love their profession as they love humanity, and who love the truth as did the martyr, to redeem the next generation of doctors, although we may reap no other benefit than the moral one of having an interest in the future. We sometimes must sow the seed, although we may never live to see the fruit. The question, then, is one of morals, and it is either our duty to sustain our present system of schools, or it is our duty to modify them, as the case demands. It is either our duty to encourage this promiscuous *sale* of diplomas, which makes our profession a *trade*, or it is our duty to stop it. We have abundant power to do so, and we are to blame for its existence in the future.

Our medical schools are a great improvement on none, and we find their pupils superior to our ancestors, who graduated from the apothecary shop, or to the Sioux Indian "Medicine Man," who is taught by tradition; *but not very much their superior.*

Doubtless there *are* venerable and high-toned men connected with our colleges, yet they are, beyond a doubt, also conducting institutions for their personal gain. It may, or it may not, militate against the character of a "high-toned" gentleman, but *they do* speculate most mercilessly upon about three thousand gullible youths annually, and the worst is this: the whole nation has to pay the penalty for the *ills* of this low grade of scholarship.

We annually turn out more *poisonous material* from the numberless medical schools scattered through our cities and hamlets than all the distilleries of a generation. It is easier to secure a diploma from the best medical college in the States, than to learn to make a panel door, or to lay a brown-stone front, or to put a cornice on our hall ceiling; yet we are offended if we are not regarded as a *great profession.* We advertise and invite *every one* to distinction, provided only he or *she* be eighteen years old, and has money enough to pay for the course of lectures, and thirty dollars for a sheepskin.

I was taught to believe that all one had to do to become a member of a great scientific body was to possess one of them, and conscientiously followed my teachings, but would not do it again, nor advise any one else to do so. I was a graduate of one of the best colleges in America, and when I left the dignified influence of President Woolsey—whose officers we never met in public without a respectful salute, and who never entered the lecture-room unless we arose and stood uncovered till he was seated—I say when, with the recollections of a dignified senior, I entered one of the best medical colleges in New York City, and saw the iron-gray professor enter the lecture-room amid the clapping of hands and shouts such as accompany a clown into the circus ring, I never ceased to wonder; and when I gazed about I saw a list of *boys* displace my old-time associates, and felt that the "golden era" had truly been succeeded by the dark ages.

Those nervous, anæmic boys instantly threw aside their cheroots and cigarettes, and pocketed their pipes, to draw forth their note-books and *scratch* for dear life, to keep even with the professor for one hour. What a vision for one entering the gateway of a great science!

Now I submit this picture of a scene which those "high-toned" gentlemen are witnessing daily at this season of the year, and submit for their consideration another picture (more than two thousand years old) of the great academy where Hippocrates and Theophrastes discoursed daily to two thousand students, of the most illustrious families of that enlightened era. Verily it is a great gift to behold the light (?) of this nineteenth century!! About one hundred ambitious physicians and surgeons of New York, and about the same number in Philadelphia, and half that in Boston, manage our colleges for their profit, and a thousand or two others in the same cities calmly look on, and are daily humiliated; hence, as I said above, "we have abundant power to stop it, and are to blame for its existence in the future." Do we need such schools for the next generation? Is the health of our armies, of our navy, and of forty millions of civilians to be *always* entrusted to such boys? Are the great unanswered questions of the science of medicine to be solved by such untaught boys? Can the fountain rise above its source of supply?

We scold because we command no respect at our State capital; we scold because we cannot *legislate* into the vulgar brain that the *regulars* are more able than the *quacks;* and we scold because we obtain no high rank in the army, neither in the navy. Please look at the studies and the discipline in the naval school at Annapolis, and of the cadet at West Point; see their training for six years, see their examinations of five hours in each department, and this all in writing, and you will excuse them if they ignore a profession which insists on a verbal and superficial examination of, say ten minutes, before each professor, and on a moral character only to qualify him for his great work. We *have no weight* in legislation because we have no organization nor unity among ourselves, and *we* have no unity because we have no common ground to unite on, and we *don't* know, *absolutely*, enough to venture an argument before a committee which will stand alone. There is *no doubt* that our profession is overcrowded, and chiefly so because our colleges open their doors to "all sorts and conditions of men" and women and boys, without any preliminary training, without *any necessary* condition, except the deposit with the clerk. The only *necessary* difference between a boy, or a girl, who *results* in a doctor and one who *results* in a shopkeeper is that of a few hundred dollars, cash or credit.

We graduate annually five M.D.'s to Germany's one. I repeat, then, that the thing we most need to treat is our own case. What we most need is fewer *boys* and more *men* in the profession, fewer professors and more teachers, and fewer teachers and more investigators, fewer colleges and more learning, fewer "successful" and more "unsuccessful practitioners."

Very respectfully,

A. M. D.

Oct. 18, 1875.

THE EXPERIENCES OF AN "UNSUCCESSFUL PRACTITIONER."

ANOTHER LETTER FROM "DIPLOMA."

To the Editor of The Medical Record.

Dear Sir:—In my previous letter I endeavored to point out by realities of experience the dark points in the life of a medical man. I am not such a fool even as "Success" thinks I am, for I look on the man as a despicable coward who makes his misfortunes public for no other purpose than to attract general sympathy; neither do I blame everybody but myself for my discomfiture: neither am I envious of the success of "Success," or any one else.

Embryo medical men imbibe large draughts of sweetened buncombe pap, and are shown only the *couleur-de-rose* side of the picture during their education: the bitter disappointments which await so many, the consciousness that their best years and what little money they possessed have been spent in preparing them for a business from which, within no reasonable period of time, can the greater proportion expect a living—this is a state of the case which, for many reasons, is systematically ignored. It was my honest conviction that my personal history might save others from an evil fate, and hence the purpose of my letter.

Of course I anticipated the "sarkastik" smile of hundreds, the lesson of whose lives was contradicted by my letter (*vid.* "Success"); of course I expected to be called hard names, to be ridiculed, and held up as an awful example. This had its natural effect. I was completely done for—crushed. I may get better: I do not know. My chief concern is for you, Mr. Editor. In your kind but unfortunate endorsement of my letter you certainly knew the man of whom you were speaking, otherwise you would have kept silence. Truly it is very heinous in you to believe a gentleman on his word; truly you are justly, if severely, punished by being put between a pair of sneering quotation marks, and you—even the best of writers—will not show to advantage in quotation marks, just as a pretty woman looks badly in an ill-fitting costume.

It is distressing to read the withering rebuke administered to you for finding anything worth reading or that is not misrepresentation in my letter. You see in what your generosity has involved you. In itself my letter would have been passed by in silence, as beneath criticism, only because you were deluded into saying a good word for it, it merits notice that you may be set right. This is really worse than Brown-Séquard's treatment of Mr. Sumner. Do you feel yourself able to survive? I hope and believe you may, with the help of a vigorous constitution. As for me, as I said, the result is doubtful. What have I not done? I have maligned "the institutions which have the training of our young men, and thus give character to our profession." "Success" is not connected with any medical college, but he can't bear to have the colleges maligned; more than that—he can't bear *calmly* to have them maligned.

Again: I have said that the profession in this country is overcrowded, and proved my statement by statistics and personal experience to my own satisfaction. But then anything can so be proved, for one of my methods of proof has proved the existence of ghosts and hobgoblins, and of what use is personal experience when it proves such things as these? That I allied myself with the believers in spooks, by using personal experience, is truly a humiliating thought, and under the depressing influence of this reflection it is with great diffidence that I venture to beg "Success" to tell me how many different things may be proved by the personal experience and bit of statistics in my previous letter. The subjunctive mood is an excellent thing in itself, and a particularly excellent thing in the hands of such a master of logic and English composition as "Success;" but he knows that he expresses an uncertainty by using this grammatical form; and if he doubts the conclusions I have drawn, will he not instruct me how to avoid my error by pointing out the true inference?

Again: though an admirer of eloquence and fully appreciative of the lofty flights even of an opponent, when he asks, "Tell me of what advantage would it be to him"—meaning the unworthy writer of this communication—"to have the standard of medical education raised, when even the ill-educated quack has more moral control over patients than he?" Yet one could wish that in this really great effort he had not sacrificed clearness to beauty. He is speaking of a time when, according to the construction he puts on my words, I was worsted by a pair of quacks. When we doctors suffered from the invasion of our town by the pair of rubbing quacks referred to in my letter, the most successful regular practitioner there was ready to admit that the *moral* "*cussedness*" of some of his patients made them go to have disease rubbed out of their "pores," and that all his *moral control* was inadequate to prevent this loss to his practice. More than one metropolitan physician of great reputation and large practice will acknowledge a like experience, and "Success" must be the most wonderful as well as most successful of men if his business is free from such complications.

The remarks of "Success" touching the inefficiency of legislation in medical matters are true enough, but gratuitous. The expression of a body such as the New York Medical Society, may be taken as fairly representative of the views of the most intelligent of the profession on this subject, and not only are we agreed to stop this business of asking bread of bribe-takers in the Legislature, and getting a stone for our pains, but in general the utter fatuity of all sumptuary laws is acknowledged. We have no protection against quacks, and the absurdity of the matter lies in expecting anything better. So when "Success" asks: "Who doubts the final issue?"—as if the ultimate triumph of physician over quack was a thing assured and beyond doubt—his expression must be taken as the bias of an extremely optimistic mind.

There are men, and they have their admirers, who think to settle a question of fact by grandiloquent language about faith in human progress, the advance of civilization, and various similar stock phrases. Such a style might be eminently appropriate if we lived in the millennium, or if the signs of the times showed the near advent of that period; but in sober common sense it becomes us to let future generations work out their own salvation, and to know that the consideration of any subject, such as the statics of things medical, is not to be facilitated by the cheap claptrap of high-sounding words, or by assurances that matters will be very different a hundred years hence.

Stripped of verbiage, "Success's" idea is, that no physician of education can really fail from the competition of charlatans, if said physician has any perseverance or grit. More than this, it is arguing against the progress of civilization to believe in successful ignorance; and for the reason that to argue otherwise is to argue that the course of civilization is backward, the instances of successful ignorance may go for nothing.

Against this sublime reasoning I have nothing but my poor facts. Has "Success" any idea what are the amounts returned as incomes by such frauds as Pierce, Schenck, Helmbold, Von Eisenberg, Radway, Ayer, Jayne, and Hostetter?

Can "Success" name, name for name, an equal number of metropolitan practitioners, in highest standing, whose pecuniary success in anywise compares with that of these advertising humbugs?

Successful as "Success" has been, let him write a little pamphlet, with illustrations of various diseases, preferably of the genito-urinary organs—let him see that this choice effusion of his pen is well circulated—let him spend the cash he may have remaining in hiring a page of *Harper's Weekly* for advertising, and in the rent of a convenient office—let him do these things, and I can assure him that his previous success as a regular practitioner will seem pitiful after a few weeks' experience in his new departure.

What possible chance has the modest tin sign of the reputable physician against the detailed advertisement, the boasting assertions, the pills, potions, and cure-alls of the quack? "Success" acknowledges that "the educated physician has to compete with the ignorant and vulgar, always has had to, and probably always will." In spite of all this, "Success" is sure the educated physician will triumph. To argue with a man who talks in this way is argument thrown away. I do not expect to convince him, for belief and assertion are often self-supporting, however crazy that support may be; but, unless my statements are erroneous, unbiassed men will probably agree to the fact that the regular practitioner who is a conscientious exponent of the code of ethics in his professional life, must wait long, and often vainly, for a tithe of the substantial rewards which charlatans command. We cannot blame the community for this. It is common experience that no amount of education or intelligence will save the victim from the quack, for of all human pursuits medicine is the one which, in the absence of technical training, is least amenable to criticism from laymen. "Success," and men who think with him, forget that the very characteristics which stamp a man as a fraud and a pretender in the estimation of the regular profession, recommend him as an able physician to the layman of best judgment.

The layman knows nothing about the disfavor with which advertising, the announcement of specialties, and the patenting of appliances is regarded by the regular profession; but he knows that such a man as A. T. Stewart has accumulated a fabulous fortune, and that one of the legitimate methods of its accomplishment was by advertising that A. T. Stewart kept the best goods at lowest prices; he knows, likewise, of many men who have succeeded by applying themselves to the thorough acquirement of some branch of a particular art, and then taking every means to let people know of their special aptitude; he knows, lastly, that his own competence comes from the royalty on a patent he obtained for an improvement that greatly enhanced the value of some article in general use, which would have remained comparatively unknown, or never been manufactured, had it not been his interest to introduce his patent. In a word, our intelligent layman sees a man, a physician by profession, pursuing those well-known and reliable paths to success which, as a non-professional, he—the layman—believes to be legitimate and proper. Moreover, the advertiser does not make naked assertions without good common-sense dressing. He spends much money to hire whole pages of religious weeklies and popular illustrated papers, wherein he appeals to the understanding of his readers whether it is not the proper thing to attack disease at its seat in the blood, and by the use of skilfully compounded extracts from the herbs, which Providence has provided and the doctor's long and arduous course of experimentation has shown to be specifics against those terrible diseases scrofula or king's evil, syphilis, and all forms of blood disease, so to cleanse, and at the same time enrich the great vital fluid that the very essence of all the foul humors is dispersed, the vigor of youth restored, and life renewed.

Such coin as this, however base its ring to us, passes current as true metal with our intelligent layman; he thinks doctors are prone to shake their heads about simple matters and to complicate cases unnecessarily, whereas, disclaim it as he may, he likes to reason about the causes of things, and is ready with an opinion on the state of the bodily fluids in a cancer subject when Virchow and Rokitansky are silent. If we remember that it was not very long ago when medical men looked no farther than the stomach for all the ailments which Broussais believed worked a constant change in that viscus, we will readily understand how a man may be a good judge, or an acute philologist, or even a sharp rag-baby politician, and yet go to the world's dispensary to have his difficult and expensive disease laid before a consulting board of physicians (?) of that famous institution. Is any one so wise as to contend that legislation is a remedy for this?

"Success" is so extremely suggestive in his remarks, that to consider all he says will spread this letter beyond all limits; but let me call attention to this:

"I believe that the law of supply and demand alone can regulate the number of men who practise medicine, and that medical colleges are just as subservient to that law as individuals. . . . . Encourage them to elevate their standard for the public good, and not attempt it for private gain."

Did "Success" ever read John Stuart Mill's Political Economy? If he had, he would have learned that regulation by supply and demand is often attained after a long glut in the market; persistent, fierce overcrowding; workers attracted through deceptive appearances to produce that which will find no buyers; many contestants, drawn by a single glittering prize, which can be but the fortune of one, and must prove the ruin of many. This inexorable law is certainly at work, but in a very different way from that which "Success" imagines. Whether he believes it or not, the fact is true as an axiom, that *one-half the number of physicians in this country cannot be making a living, or anything approaching one, by their profession.* It will not do for "Success" to say he does not believe this. If he can controvert the fact, he must do so by something else than mere assertion. It is a matter of simple arithmetic. Let me again use my despised morsel of statistical fact, that "Success" says can prove anything. Is it true, or is it not, that the last census returned seventy-four thousand physicians, or about that number, for these United States? It will not affect the question to count out any of these because they follow some calling besides medicine. Many young physicians eke out a scanty subsistence in many different ways, but that fact is indirect proof of an overcrowding of the profession. Now, in all honesty and fairness, I ask "Success" how a profession which in an equable distribution of patronage gives five hundred possible patients to each doctor, can be proved to offer "excellent promises of a livelihood and more, to young men of perseverance and ability?" "Oh! but," "Success" will say, "a good many are men such as you are, that is, flounderers and grumblers." Exactly;

granted. But a large proportion must be men such as "Success" is—men who, as he puts it, have taken warning, or who would take warning by my "melancholy example, not to be content with the knowledge that they have an education 'much more extensive,' etc., but by untiring energy and honest endeavor elevate themselves to places of honor and emolument," etc. Suppose that we cut the number of medical men down to thirty-seven thousand, less than one-half the present number, and suppose that this number is of material after "Success's" own heart. Here we have a picked body, with all the flounderers and grumblers, such as the writer, counted out, and all the men of untiring energy, etc., such as "Success," setting out "to elevate themselves to places ot honor and emolument." Suppose that each man of this picked body had his exact quota of one thousand possible patients parcelled out to him, and I respectfully submit that there would be places where, for a long time—long enough for the doctor to starve—pay patients would ungenerously refuse to sicken, localities where no profit or emolument was to be had, and districts in which the most untiring energy and perseverance could only result in decreasing the doctor's weight, whereas, if he had only been a flounderer and grumbler he might have preserved a little adipose till his friends came to help him.

The matter is so serious that I do not wish to ridicule it; but seriously, it seems to me too bad that as your correspondent "Successful Practitioner" well puts it, the general belief in such glittering pictures of the statics of the profession as those drawn by "Success" and "high-toned" professors, should flatter crowds of poor students "into spending their money and time on a profession that must eventually fail them." What sort of talk is this of "Success" when, in an equable distribution, the population is not enough to support half the present number of doctors, when the immense practice of a few widely known practitioners absorbs the quotas of many of their professional brethren, and when it is notorious that the multiplication of medical charities, to which the wealthy and great subscribe, and to which medical nabobs attach their names as Visiting and Consulting Physicians, is taking the bread out of the mouths of obscure deserving men? Dear Mr. Editor, in this as in most things, perhaps, the truth is the only thing to be respected, and as "Success" demolished me through you, may I be allowed to say to him, or others thinking as he thinks, through you, that when next they write you a letter, it will be more satisfactory if in place of beliefs which persist after reading my letter (vid. "Success's" communication), they give us some testimony to the truth of their beliefs. To "Success," as the would-be champion of the medical colleges, I will say that I too know men amongst the professors whom I believe to be "honorable and high-toned." Nevertheless, I do not retract the charge which he characterizes as "base and groundless." If "Success" could question the professors about each candidate, as he appeared on the stage to get his diploma, and ask whether the statement, "This candidate has attended two full courses of lectures," was absolutely true, the response, if conscientiously given, would be, in many cases, that so far as the professor's personal knowledge went, he could not say. On the other hand, I can positively assert that the faculty to a man possessed positive and reliable information that each candidate had paid his fees to the last dollar. The only exception might be the case of a substitute, a dummy—the *bona-fide* graduate having paid his money, received his diploma, and gone home to practise, whilst the faculty, that appearances might not suffer from this contemptuous avoidance of their barbecue, bribed an under-graduate by the present of a stage ticket, to represent the delinquent.

It is not for the rigid exaction of fees that fault is found. Professors are but men, and no one but "Success," whose contempt for the great motive power is constantly evidenced by such exalted sentiments as "encourage them (the colleges) to elevate their standard for the public good, and not attempt it for private gain," either desires that a man should, or believes that he would, accept a chair in a medical school, or hold a hospital position for such reward as the sweet consciousness of doing good alone could give. There is nothing so pitiful as the wretched underbidding of each other by starveling country medical colleges, and if city schools can flourish on large fees, by all means let them charge the highest, and derive such dignity therefrom as may be had from that fact. It is the system that is wrong. In London the most successful school, and the one which makes the most money, is that which puts the greatest number of men through the examinations of the London University and the Colleges of Physicians and Surgeons. All honor to such a competition as that. When candidates are on an equal footing, and unknown to their examiners, other things may have been important before, but the one thing important then is ability to pass the examination. Has "Success" never heard, can he not understand, that the greatest boast of the New York colleges is the great number of men they turn out as M.D.'s.

If he knows anything at all of the matter, can he affect ignorance of the fact that the supreme point of rivalry amongst the three colleges is which one shall excel the other two in this wholesale, iniquitous manufacture of doctors? Has he never heard it said of a notoriously dull student, "He is one of Prof. ——'s"—mentioning the name of one of the Faculty—"men, and is sure to pass?" Has he never known the joining the private class of a professor to save a man considered very sure to fail? Are there not men given diplomas, licensed to undertake obstetrical operations, practise surgery, and who are liable to be called on as experts in coroners' cases, who, for aught those who conferred all these grave powers upon them know to the contrary, never witnessed a case of natural labor, never opened an abscess, and never performed an autopsy? Grant this is an extreme case, the point is that with the existing system it is possible, and I challenge denial. Finally, is it not an assumption too outrageous to suppose that, of one hundred and fifty men whose manners and conversation prove that the majority are strangers to any but the most rudimentary general training, all, with the exception of a paltry dozen or two, can be found fit, at the end of the prescribed two years, to exercise the varied and trying responsibilities of the physician?

There could be but one result to all this, and that, Mr. Editor, you point out well in your editorial of the 16th October.

"Not only in the metropolitan centres, but in the most remote hamlet this competition is active, for nowhere are there any places vacant which enable any one practitioner to claim the unquestioned monopoly of the practice of any community."

If anything, you have understated the existing competition. Ask old-established medical men to recommend an opening to a young doctor, and see how few the responses. Yet the colleges go on each year turning out more men, more men, and the cry is still they come, at the rate of thirty-five hundred yearly. Perhaps even "Success" will acknowledge this is a little too fast for the population. The remedy lies beyond our reach. We have made our bed and must lie in it. When the time comes, as it doubtless will at this rate, and after the delusion about there being plenty of room in this "great and growing country for all the doctors that can be turned out" is dispelled—when the time comes that each household hires its doctor as it does its servant—then, perhaps, things will be organized on a new basis, and we will have a copy of the extreme German plan,—gymnasium, university, five years' study, and thoroughness.

One word more to "Success."

Since writing you my previous letter, and before my new plans were complete, I was advised to try a locality where, from the retirement of a physician in large practice, doctors were not very thickly planted.

I have not changed any that I know, and if I grumbled and floundered before, I grumble and flounder still; but having now somebody else's and my own quota of patients I find grumbling and floundering pecuniarily successful.

Neither "Success" nor success has yet turned my head, and I can yet sympathize with a man who is so unfortunate as to occupy my previous box, without charging his misfortune to grumbling and floundering. Please pardon this selfish detail. It is introduced to show "Success" how—strangest of anomalies—g. and f. may be attended in one place with disaster, in another be made to pay. Diploma.

INJECTION OF STRYCHNINE INTO THE BLADDER FOR PARALYSIS OF THAT VISCUS.

To the Editor of The Medical Record.

Dear Mr. Editor:—It is, perhaps, not often that you are troubled with communications or reports of cases from America's antipode; but as to me at least there are some points of interest in the history of the following case, I take the liberty of reporting it, in the hope that, if you consider it worthy of publication, it may be of some interest to my professional brethren at home.

Mrs. B., æt. 33, the wife of an English missionary, was taken in labor with primipara, about midnight, August 15, 1875. At half-past one o'clock A.M. I was called, and found the os uteri somewhat dilated, parts moist and cool, head presenting, and all things normal with the exception of a very narrow pelvis, but as the head of the child was not large I hoped that nature might be adequate to the situation. The first stage of the labor was normal, although rather slow, and by six o'clock A.M. the head of the child was in the lower strait, and there, notwithstanding very severe pains, it remained until ten A.M., when her strength seemed suddenly to fail, and she became very nervous, crying and laughing alternately, with a good deal of muscular twitching. The pain was now constant, but appeared to have not the least expulsive force; consequently about half-past ten o'clock A.M. I administered chloroform, applied the forceps, and by using a great amount of force, succeeded in delivering her of a living child, weighing about six and a half pounds, which—I may say in passing—is at this writing alive and well. The placenta came away in about twenty minutes, by aid of gentle traction, and there was not much flooding. And now comes what, to my mind, is the interesting and unusual part of the history. About six hours after delivery Mr. B. came to me and said that Mrs. B. had a great desire to urinate but without the ability to do so. I introduced the catheter and drew off somewhat over a pint of normal urine, telling her that she would probably have no further trouble in passing her water; but in this I was, as the sequel will show, much mistaken, for from that time until Sept. 4th—a period of twenty days—I was obliged to use the catheter twice daily, she continuing to have, despite all that I could do for her, not the least power over the bladder, and remaining unable to pass even a drop of water. At this time it occurred to me—from the success which I have had from its subcutaneous injection in case of paralysis of the optic nerve (a disease very common in China)—to try injections of sulph. of strychnia.

I accordingly prepared a watery solution of the strength of one gr. to two ozs., of which I injected into the bladder one drachm three times a day in about one-half ounce of tepid water. And here the history of the case nearly ends; for after the administration of the third injection (the strychnia having been in use as an injection, from first to last, about fourteen hours), a copious voluntary flow of urine came on, and Mrs. B. has since been in possession of all her natural functions.

Query.—Did pressure *produce* and strychnia cure the paralysis? I leave my professional brethren to answer, simply submitting the case, with the hope that others may be stimulated to test more extensively the value of strychnia as a subcutaneous and local application in cases of a kindred nature. I may mention that Mrs. B. had taken strychnia in full doses *per orem* previous to the use of the injections.

If agreeable to you, you may expect to hear from me again ere long in regard to China and its diseases, the working of our mission hospitals, etc., etc.

Fraternally yours,
W. E. Tarbell, M.D.,
Am. Meth. Epis. Mission.

Central China Mission of the Methodist
Episcopal Church, Kiukiang, *Sept.* 12, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Oct. 31st, 1875, to Nov. 6th, 1875.

Edwards, S. A., Surgeon.—Granted leave of absence for six months, on surgeon's certificate of disability. S. O. 223, A. G. O., Nov. 4, 1875.

Monroe, F. Le B., Assistant Surgeon.—Granted leave of absence to Dec. 31, 1875, and his resignation accepted by the President, to take effect Dec. 31, 1875. S. O. 222, A. G. O., Nov. 2, 1875.

Cleary, P. J. A., Assistant Surgeon.—Granted leave of absence for 20 days. S. O. 207, Department of the Missouri, Oct. 27, 1875.

NAVY.

November 7.

Coonan, John N., Acting Assistant Surgeon.—Detached from duty at the Navy Yard, at Pensacola, and placed on waiting orders.

A Homœopathic Hospital in Brooklyn.—The Brooklyn *Argus* publishes a petition to the Board of Charities of the County of Kings, on behalf of the Trustees of the Homœopathic Hospital, asking for the use of the vacant Nursery buildings, at Flatbush.

Medical Items and News.

New Journals.—*The American Journal of Microscopy and Popular Science* is a new periodical which is to appear monthly under the auspices of the Handicraft Publication Co., of 37 Park Row. It comprises eight pages octavo, and is furnished to subscribers for fifty cents a year.—*The West Virginia Medical Student* is another monthly of thirty-six pages, edited by James E. Reeves, M.D., who is also the proprietor. It is published at Wheeling, and aims to advance the local medical interests of the State. Its first number is a very creditable one in every respect, although only one of the four leading articles is by a Western Virginian; one being from a New Yorker, one by a Philadelphian, and the other by a Baltimore physician. We hope its editor may be more successful in future numbers in securing home productions if he intends that the *raison d'être* of his journal shall be the representation of the local and State profession.

The Indiana Journal of Medicine, edited by Thad. M. Stevens. M.D., has been consolidated with the *Cincinnati Lancet and Observer*, after an existence of five and a half years, owing to the ill-health of its editor.

The Journal of Anatomy and Physiology has added to its staff the Prælector of Physiology in Cambridge and the Professor of the Institutes of Medicine in Edinburgh, so that it is now under the control of Professors Humphrey, Turner, Foster, and Rutherford.

Dr. Jahr, the disciple of Hahnemann, has recently died at the age of seventy-five years, at Brussels, where he had established himself, having been forced to leave Paris at the time of the Franco-German war.

A New School of Anthropology has been founded in Paris. Courses of lectures on the various branches of science have been arranged, and are to be delivered at the École Pratique, by MM. Broca, Dally, Mortillet, Hovelacque, Topinard, and Bertillon.

Professor Moritz Schiff, of Florence, has been awarded a prize of twenty thousand francs by the Academy of Medicine of Turin, for his work on the physiology and pathology of the nervous system.

The Journal of Psychological Medicine and Medical Jurisprudence is to be abbreviated in title to *The American Psychological Journal*, and the Medico-Legal Department is to be added to *The Sanitarian*, after January 1st.

An East Indian Surgeon, Ram Sundar Gose, is said to have performed lithotomy five hundred times, inaugurated charitable dispensaries in wild and remote districts, organized four hospitals, besides vaccinating one hundred and sixty-three thousand in two years.

The English Medical Schools.—According to *The British Medical Journal* of October 16th, the registration of students at the Royal College of Surgeons had reached the gross number of 1,540, St. Bartholomew's being at the head of the list.

Iowa State Medical Directory.—Dr. Charles A. Lathrop, of Lyons, Iowa, is engaged in making a medical directory of the physicians of his State.

Dr. Junken, the Senior Professor of the Faculty of Medicine in the University of Berlin, died on September 8th, at the age of eighty-two years.

The Comparative Increase of Medical Students in England.—*The British Medical Journal* gives the following table of the comparative increase of medical students registered at the Royal College of Surgeons during the past decade:

In 1865	the number of	students	registered was	1,013
" 1866	"	"	"	1,027
" 1867	"	"	"	1,125
" 1868	"	"	"	1,194
" 1869	"	"	"	1,241
" 1870	"	"	"	1,298
" 1871	"	"	"	1,475
" 1872	"	"	"	1,496
" 1873	"	"	"	1,608
" 1874	"	"	"	1,745
" 1875	"	"	"	1,754

Curious Brain Lesions.—The St. Louis *Clinical Record* contains a remarkable case of brain lesion. A man named Waters, living near Leavenworth, Kansas, died from morphia a short time ago, and as it was known that he had had a habit of running wires, and even nails through his own skull during his former residence in the penitentiary, a careful autopsy was performed. Two openings were found in the skull, one, which the prisoner was known to have made with a brad-awl, near the inferior posterior angle of the right parietal, and another near the superior posterior angle of the same bone. A wire was found in the brain. It had been introduced through the upper opening, and just missing the superior longitudinal sinus, had pierced to the base of the brain, a little in front of the fissure of Sylvius. It is stated that the corpus striatum was not wounded. A nail, one and three-fourth inches in length, was found lying beside the wire. Although wires had been removed during life from the lower aperture, no trace of their course was discovered. Though the patient had shown a suicidal tendency he did not appear insane, except for this habit, and could do his work with correctness and understanding.

M. Paul Bert has received the decennial prize of the French Institute, amounting to twenty thousand francs, for his work on the effects of barometric pressure.

M. François Marbeau, the originator of *crèches* or nurseries where working women can leave their infants to be cared for during the day, is announced to be lately deceased.

Weekly Bulletin of the Meetings of Medical Societies.

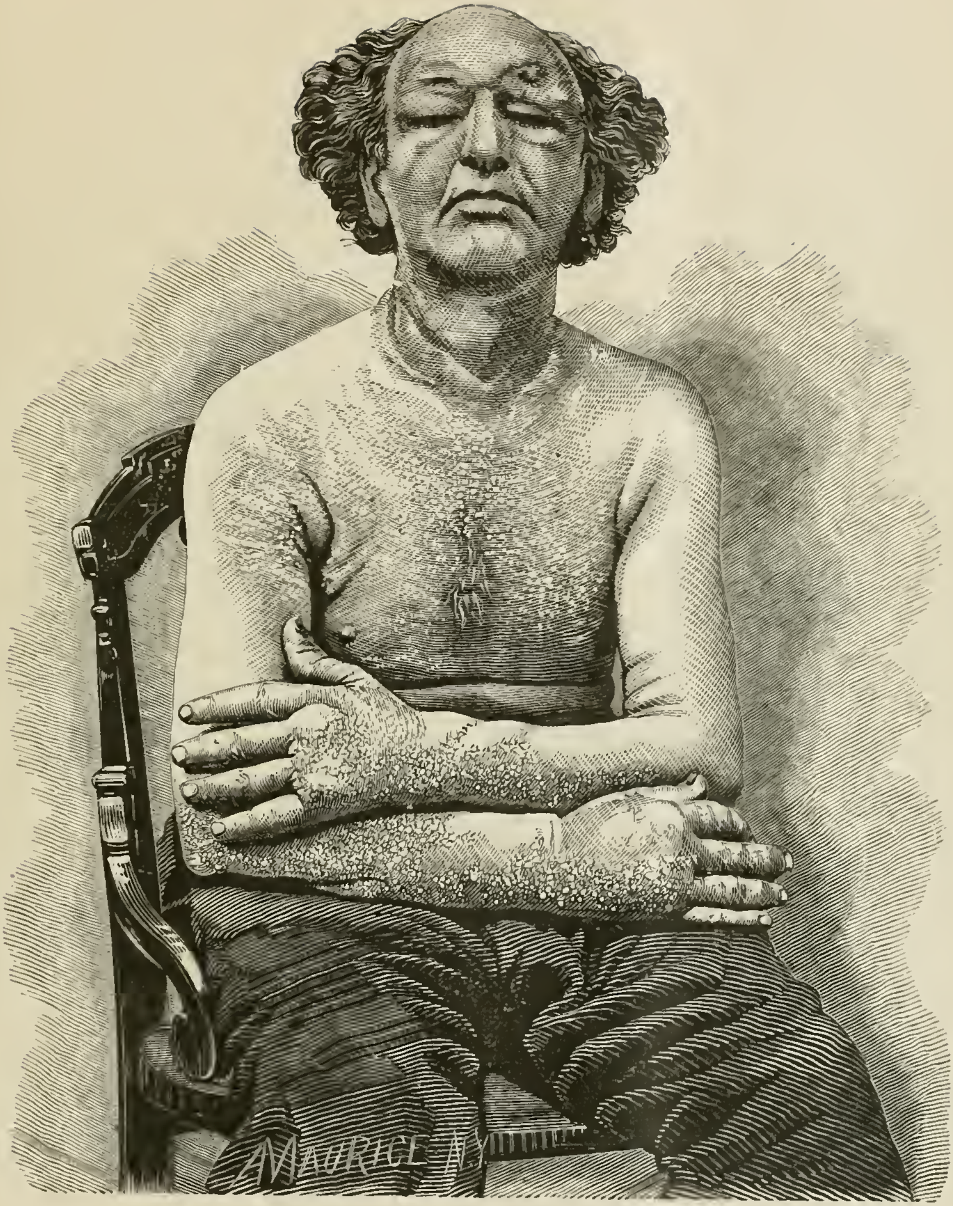
[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office*, 27 *Great Jones Street, one week previous, to insure their appearance.*]

Monday, Nov. 15.—N. Y. Academy of Medicine, Section of Obstet. and Dis. of Wom. and Chil., at No. 12 W. 31st St. N. Y. Soc. of Neurology and Electrology.

Tuesday, Nov. 16.—N. Y. Obstetrical Soc., at the residence of Dr. John E. Blake, No. 69 W. 19th St. Cases to be presented by Drs. Thomas, Emmet and Peaslee. Med. Soc. of the County of Kings.

Thursday, Nov. 18.—N. Y. Academy of Medicine, at No. 12 W. 31st St. Anniversary Meeting, Address by E. Darwin Hudson, Jr., M.D., on "Doctors, Hygiene, and Therapeutics."

Friday, Nov. 19.—Medical Library and Journal Association, at No. 12 W. 31st St.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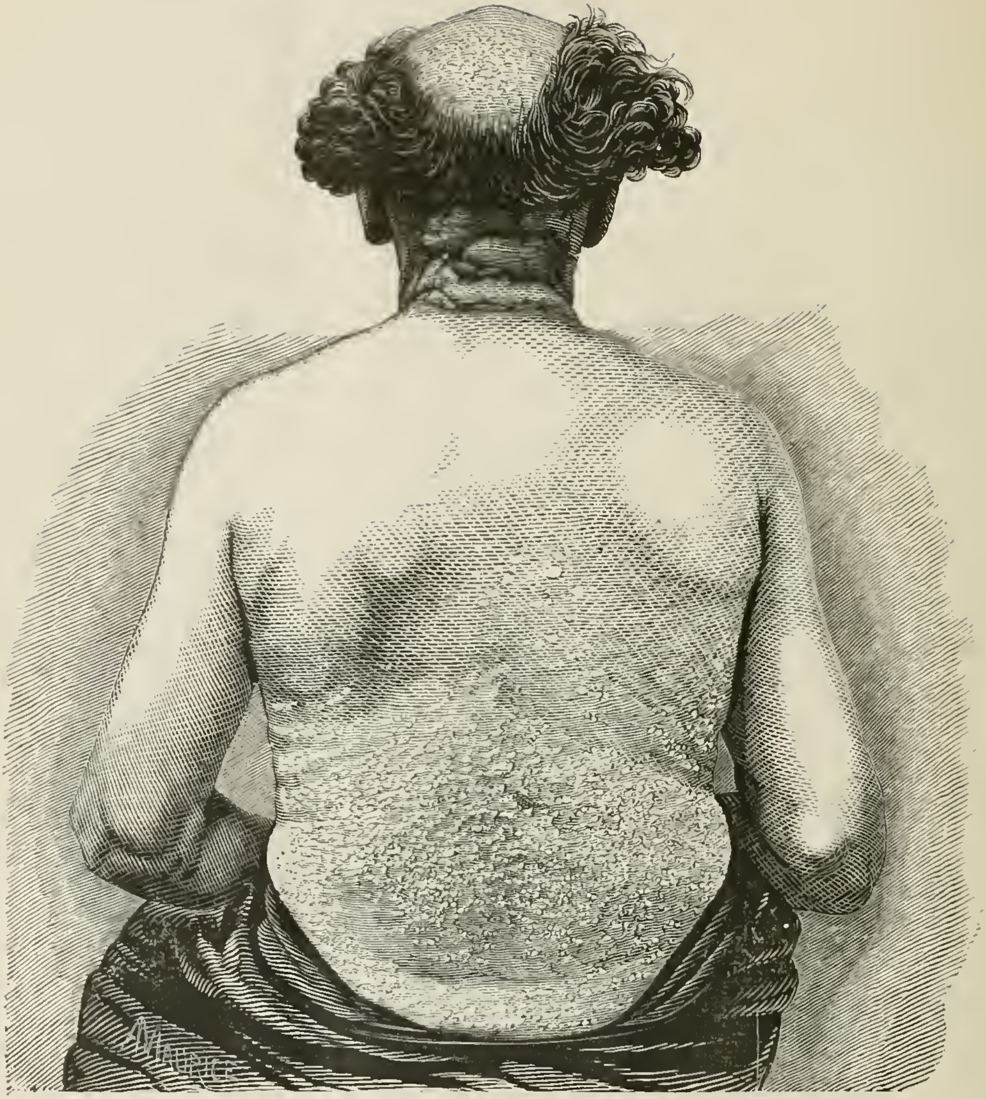

Original Communications.

REPORT OF THREE CASES OF TRUE LEPROSY.

By W. JEROME DONOR, M.D.

Elephantiasis Græcorum is common enough in many parts of the world, but cases occurring, as those here recorded, in a non-leprous part of the United States, without assignable cause, appear to be worthy of notice. Fortunately, leprosy, as a rule, keeps to a limited locality for a long time.

In the Arcadian village of Tracadie, near the mouth of the Miramichi River, Canada, there have been lepers, I am told, for eighty years or more, and the local government supports a hospital for their benefit. The people attribute its origin to two lepers brought by a French vessel on her return from Smyrna, and from one or the other of these men every leper is supposed to have descended. It is not there regarded as contagious, but as simply hereditary. They do not dread the affection, but work together, and marry among themselves. They say that the taint generally manifests itself every alternate generation, and in this way has become permanent in the locality; while the general poverty and rather uncleanly habits of the French population favor its propagation. It usually shows itself at first by a few or more spots, most frequently on the breast, then the face becomes swollen: there is much pain, languor, and drowsiness; the fingers become stiffened, crooked, and weak; the neck swells, the legs look dropsical, the nails fall off; at last the throat and lungs are attacked, and the sufferer dies in a loathsome condition. Its duration varies, according to strength of constitution, from five to twenty-five years.

Leper No. 1 of the report was seen by many prominent members of the profession, and created much interest. The accompanying cuts are from a photograph at near full development of the attack, and are perhaps as fair representations as can be expected from a photograph. The scalp-tubercles, for example, are not shown.

Leper No. 2 was first diagnosed as such by Dr. Brown-Séquard several years ago, who called particular attention to the numbness of the finger-ends and elbows.

Whether leper No. 3 brought his disease with him from Germany or contracted it here, is not clear.

Case I.—David B., aged 48, machinist, born in England, came to the Demilt Dispensary, April 14, 1871.

His antecedents were, born in England, and none of them ever had leprosy. The patient is a tolerably robust well-built man; has lived in New York and New Jersey for the past 38 years; has never had syphilis, or any serious illness, except an attack of bilious remittent fever while living in Jersey several years ago; and his diet has been usually of the ordinary mixed character.

Present Attack.—Three weeks ago he took a dose of "senna and salts," and the next day, while taking a long walk, got wet. The following morning he resumed his labor in the machine shop, but soon felt a severe pain in the right metacarpo-phalangeal joint, which at the same time swelled so rapidly that he called the attention of the foreman to it. Swelling of the corresponding joints of the third and fourth fingers, with slighter pain, quickly followed; and by 9 o'clock A.M. the hand and wrist had become so swollen that he left off work. After he got home the face began to swell, so that in two days his eyes were almost closed. Four days after this, the middle finger of the left hand became swollen and somewhat painful; the neck began to swell, and two or three tubercles were noticed in the tumid back of the right hand.

Present Condition.—Face enormously swollen, with a marked leonine expression. The swellings are most prominent on the forehead; above and below the orbits; the cheeks; the chin, especially at the angles; sides of the bridge of the nose; and the ears are thickened. The neck is enlarged by thick soft ridges, with the natural lines deepened into furrows. These swellings are not painful; are smooth, soft, elastic, and of a pale red (except the ears and neck, which are of a dusky red; and backs of the hands, which are œdematous and not discolored.) The skin of the neck is rough from a thickened cuticle. A tubercle, the size of a pea, freely movable, is observed in the midst of the soft swelling under the left eye. There are also several in the back of the right hand. The skin of the wrists is of a pale red, and slightly swollen, with the cuticle thickened into flat semi-transparent eminences. The urine shows only an excess of urates. The patient's general strength is not much impaired, though his hands are weak, the right one being nearly powerless. Pulse 80, tongue furred, skin dry, bowels constipated, and the temperature, as kindly taken by Prof. Wm. H. Draper, 99.8°. The patient's chief complaint is the almost constant pain in the right middle finger.

May 5.—Swelling around the eyes more prominent, sees only through a narrow fissure; the tubercle under the left eye now as large as a cherry. Skin of the chest in front, swollen, of a pale red, with cuticle thickened into flat eminences, giving a hob-nailed appearance; posteriorly, a similar condition, though not discolored. The backs of the hands pit deeply on pressure; fingers thick and standing apart; appetite rather excessive.

May 8.—Eyes partly open; a hard tubercle in the right palm; the wrist eruption extending upwards, the chest eruption downwards; neck thickened into massive folds like a "turkey's wattles," with the furrows deepened into sulci; hands a little less swollen; inner surface of the cheeks thickened; a tubercle the size of a pea on the side of the tongue.

The patient states that his sense of smell, which had been absent for more than a year, returned five days ago, and that he now smells as well as ever. He walks a good deal, appetite ravenous, tongue moist and furred, pulse 70, temperature in axilla 98°.

May 10th.—Hands less swollen, and more pliable: folds of the neck more prominent, firmer, leathery-like, and of a darker color. Wrist eruption now half way to the elbow; trunk eruption extends to the umbilicus in front, and to the lumbar region behind.

May 12th.—Complains of a pricking and tingling at the ends of the fingers, and states that during the past night they were so painful that he walked the floor, and was feverish. Right hand red and more swollen; thick folds on front and sides of the abdomen, similar to those of the neck, though softer. A nodule as large as a walnut has appeared at the right elbow. The tubercle on the side of the tongue is ulcerated.

May 15.—Face and hands somewhat diminished, paler, and his eyes are more open. All the swellings, which until recently were soft and elastic (excepting backs of the hands, which were œdematous), have become firm; the subcutaneous nodules and surrounding soft swellings appear to have run together in rubber-like masses. The forehead prominences are exaggerated; complains of soreness in the abdominal furrows; the scalp, which is bald, is dotted with smooth subcutaneous tubercles. Backs of the hands slightly anæsthetic, most marked in the right; slight anæsthesia of face and scalp, most marked on the right side. Trunk eruption extends to the hypogastric region in front, and to the sacral behind; still complains of pain in the right middle finger, and states that if he takes an alcoholic stimulant a painful tingling comes on in the ends of the fingers, and that he does not sleep well the following night. The hands are a little stronger.

May 19.—Face and hands redder and more swollen, which he thinks is due to being in the sun more than usual during the day. Some pain in the finger ends; appetite almost insatiable.

June 5.—Marked anæsthesia along the right middle finger; hands diminished in size and increased in strength; several fresh tubercles, the size of a small pea, together with others the size of a hemp-seed, are scattered over the hands. Complains of numbness and tingling at the finger-ends, and a pruriginous eruption on shoulders and chest.

June 8.—Has rheumatic pains in the knees; swelling of the hands nearly gone, though many of the tubercles remain; neck smaller, grip stronger, pulse 78, temperature 99°.

June 12.—All the swellings have diminished; circumference of the neck two and a half inches less than it was four days ago. Sweating occurred yesterday for the first time, and was forced with difficulty by a Turkish bath; last night perspiration followed spontaneously.

June 23.—Face and neck rather more swollen; grip of left hand tolerably firm. A large, soft, elastic tumor has suddenly appeared under and upon the lower margin of the left scapula, with a fluctuating feel, freely movable, oval-shaped, seven inches by five. The patient had three vapor-baths during the last ten days, but, feeling ill after the last one, discontinued them. Copious diaphoresis was effected.

July 22.—Lost sight of the patient since the above date, and during the interval some one gave him arsenic in large doses, which made him so much worse that he stopped the drug of his own accord. He complains of a troublesome dry cough; epiglottis, fauces, and palate somewhat thickened, though his voice is but slightly altered. The hobnail-like eruption has extended to the inner surface of the thighs on a red and thickened skin. Marked anæsthesia of the right middle finger; less marked in the other fingers. The body generally is hyperæsthetic; feels rather weak; complains of soreness of neck and abdomen. The scapular tumor is smaller, and gives a jerking sensation when the shoulder is rotated. A similar though smaller tumor has appeared at the lower angle of the right scapula.

Aug. 5.—Swellings much reduced; many of the tubercles have disappeared, and others are shrunken.

Aug. 18.—Eruption on all parts disappearing; hands and wrists not swollen, a few tubercles only remaining upon them.

Aug. 23.—Feels well; no pain; appetite moderate; has gained five pounds.

Sept. 4.—Considerable swelling around the eyes yesterday and to-day. Left hand apparently as strong as ever.

Sept. 25.—The scapular tumors and all the prominent swellings have disappeared, likewise the scalp tubercles; cuticle in places desquamating; forehead, cheeks, chin, and inside of the thighs have still a thickened feel. There is no discoloration except in the marks of the previous furrows. The grip of the right hand is tolerably firm, and he expects to resume work in a day or two.

Treatment.—Cathartics were frequently given to meet the constipation, which was troublesome throughout. Iodide of potassium, Fowler's solution, and the mineral acids were administered successively for a time, without apparent benefit; the arsenic speedily made matters worse. Vapor-baths, as suggested by Prof. Frank Hamilton, helped him for a time, but finally became too weakening. During the last few weeks of his illness quinine was given, at first gr. xx. daily for a fortnight; then gr. xv. a day for about three weeks longer, when he was put upon the liq. strychnia ♏x. three times a day.

The case is most remarkable for its acuteness. The lesions had not the usual brownish or bronzed color, the only approach to it being that of the ears and neck. There was no abrasion except the ulcerated tubercle on the side of the tongue; no scaly patches, and no brown stains after subsidence of the eruption.

It may be noticed that there was decided affection of the mucous membrane of the tongue, cheeks, fauces, etc., which, according to Dr. Liveing in his excellent book on leprosy, occurs only when the disease has lasted for years. There was no eruption or any signs of the disease below the upper parts of the thighs.

There was remarkable tolerance of the quinine, as none of the peculiar head symptoms were manifested, and the more rapid improvement during its use seems more than coincident. Still a doubt remains whether his recovery was not the natural decline of the attack. Should occasion again offer I should have more confidence in quinine than in anything else that I know of. We have unfortunately lost all trace of the patient since the last date.

Case II.—J. C. H., aged 63, an accountant, was born in New York State, as were also his ancestors for five generations back; is the father of four children, all living; has never had any illness except two or three slight attacks of erysipelas in 1833–4; has always lived comfortably; and knew of no disease similar to his own among his relatives.

The first attack occurred eight or nine years ago, when a brownish-red eruption extended over the lower part of the abdomen, the scrotum, and inner surface of the thighs. The parts were tender, and crusts formed which were renewed every two or three days. This eruption remained troublesome for five or six weeks, leaving a brown discoloration for more than a year. Since that time small dry patches would occasionally appear on the inner surface of the thighs; the nose became of a dusky red, not much thickened, but troublesome from the formation of scales and fissures within. A little later small dry brown scaly patches appeared in the bearded portions of the face. A numbness was noticed at the elbows, the ends and radial sides of the thumbs and index fingers, and corresponding portions of great toes. He complained of no constitutional disturbance except sleeplessness. Patient states that he has not been free from a trace of the disease since the above attack; that of the nose, with numbness of thumb and index finger-ends, having been more or less constant.

In the summer of 1872 the face eruption became aggravated, and in the following December, pain, feverishness, and sleeplessness confined him to his house. The cheeks, chin, and upper lip became thickened, with brown, scaly, fissured patches; itching and tender. Soon the eruption spread over the lower part of the abdomen, front and inner surface of the thighs, the legs and ankles; the latter became swollen and œdematous. Next upon the arms from shoulders to backs of the hands, preceded by a hot feeling in the hands. Skin generally hyperæsthetic, pulse varied from 80 to 88. The scalp became covered with a thick layer of silvery scales, with here and there red points which exuded slightly upon pressure. After a few weeks patient got more restless, worried, and complained of a benumbed skin generally; most marked in the scalp; face œdematous, with somewhat of the morose aspect; eyes having a dark and rotund appearance. The patches on the cheeks, lips, chin, and legs gave considerable suffering from the formation of crusts and exuding fissures.

About eight weeks after the onset of the attack, the eruption began to subside; the crusts were replaced by branny scales, the fissures healed, desquamation of cuticle followed, and in two weeks more the patient resumed his occupation, feeling tolerably well. Up to the present date, September, 1875, he has had but little inconvenience, though patches go and come; one or more nearly always present on the chin, lips, or cheeks. A fresh light-brown patch, nearly smooth, half the size of an adult hand, exists at the epigastrium; a smaller one at the top of the forehead, and one in the left umbilical region. The old numbness of the thumbs, fingers, and great toes continues in a less degree; that of the scalp continued till three months ago. He complains of having occasionally a slight numbness in the thighs and legs. The brown stains continued distinct upon the legs eighteen months after the severe attack, and at the present date all have disappeared; even the nose is but slightly affected.

About a dozen bright-red nævus-like elevations are scattered over the trunk, which have been coming and going for two years.

As to treatment, internal remedies seemed to avail but little; quinine was not tried as thoroughly as I could have wished, the patient being somewhat prejudiced against it. The only treatment which he willingly persevered in, was warm baths daily; and frequent applications of oil or simple cerate, which certainly afforded him much relief.

Case III. may be mentioned, though, from the incomplete history, the limited extent of the disease, and the short time under our observation, it will be perhaps of but little interest. David C——, a healthy looking German, came to the Demilt Dispensary, April 23, 1873, with thick, stiff, brownish-red ears; backs of hands slightly swollen, and the fingers somewhat thickened. He complained of no numbness anywhere. There was slight anæsthesia of backs of the hands.

This condition the patient stated came on about three months previous, remaining much the same ever since. He also stated that he was not ill at any time; that he never had an eruption before, nor upon any other parts than those mentioned; and that he came to this country about a year from the above date.

The patient suffered no inconvenience from his malady, having applied mostly on account of the disfigurement; and as treatment availed him nothing, he did not return after his second visit to the Dispensary. No change occurred in his condition during his short period of two weeks under our observation.

73 West 36th St., New York.

Dr. Kundrat, lately an assistant to Professor Rokitansky, has been appointed Professor of Pathological Anatomy in the University of Graz.

THE PHYSIOLOGICAL AND THERAPEUTICAL RELATIONS OF ELECTRICITY TO THE NERVOUS SYSTEM.

(Being a portion of a paper read before the American Neurological Association.)

By A. D. ROCKWELL, M.D.,

ELECTRO-THERAPEUTIST TO THE N. Y. STATE WOMAN'S HOSPITAL.

While the various methods of electrization have each their separate history, and must be regarded as entirely distinct processes, it is not to be supposed that in their therapeutical application they do not stand in near relation to each other. Very seldom in persistent and severe disease—that is in any measure amenable to electrical treatment—is it possible to rely on any one method, and at the same time derive the maximum of benefit that electricity can afford.

Localized faradization and galvanization, general faradization and central galvanization are constantly supplementing and replacing each other, in their relation to pathological conditions, and he alone will reap the reward of full success in this department who has a clear appreciation of the physiological relations of each method and an experimental knowledge of their uses.

Localized electrization necessitates, of course, an accurate anatomical knowledge. The motor nerve points must be thoroughly studied; the relative reaction of nerves, muscles, in health and disease, to both currents must be clearly appreciated; the polar influence of electricity, as distinguished from that of current direction, must be understood; in short, all those physiological changes that result from localized applications should be fully investigated.

Central galvanization demands a far greater familiarity with the physics of the constant current, and with both functional and structural derangements of the central nervous system, than is possessed by many who essay its use. If there is any one therapeutical process in the whole range of practical medicine that more than another defeats its own legitimate ends through careless and ill-directed or ignorant applications, it is this. As a matter of experiment, we submit a person in robust health, and with no marked nervous susceptibility, to central galvanization. If the current is gradually increased, and as gradually decreased, no unpleasant sensations are perceived, although ten, fifteen, or even twenty ordinary cells may be included in the circuit. The metallic taste is decided, the head experiences a sensation of fulness, and if the experiment be prolonged or the electrodes small, itching and heat will be experienced at either pole, and on the head, the seat of the anode, a slight pain of a dull, aching character may possibly be felt. A second person of increased nervous susceptibility will experience an exaggeration of all these phenomena, and subsequently may suffer from severe headache. Because of the symmetrical influence which the galvanic current by the method of central galvanization exerts on the brain, little if any dizziness is perceived, by even the most sensitive patients; if, however, the current be passed transversely through the head, the so-called falsification of the muscular sense that results through an unsymmetrical stimulation is the occasion of immediate and intense vertigo.

In thus transversely galvanizing the brain, the hemispheres are differently affected, and the result is a disturbance of the equilibrium. This dizziness, as a rule, passes off immediately on the removal of the electrodes, in healthful conditions, and is attended by no harmful results. In certain pathological conditions, however, and signally so when such conditions are associated with those peculiarly impressible nervous organizations that are so familiar, transverse galvanization of the brain is a highly culpable procedure. Let it be clearly understood then, that, as a rule, transverse galvanization of the brain should be avoided. If it were necessary, I might cite not a few suggestive cases, and not alone from my own experience, illustrative of the importance of this law; but it will perhaps suffice if I simply indicate a few guiding propositions. In the first place, there is a certain class of patients, that I just alluded to as being peculiarly impressible, who will in no degree be benefited by this form of application; on the contrary, if there is mental or physical derangement from any cause, such applications inevitably aggravate the existing disturbance. I would that I might specifically designate this class to the tyro. In most instances there is no outward indication of any such susceptibility, and very frequently the most careful examination will fail to elicit a suspicion of any unusual relation of the nervous system to electrical stimulation.

It is only when you come to subject them to the test of actual treatment that idiosyncrasies are manifested that would not be distinctly revealed by any other method.

In two exceptional cases, for example, a current of comparatively feeble tension caused an astonishing aggravation of functions of all the nerves of special sense.

If the statements of the patients may be trusted, the cerebral commotion during the applications was excessive.

Sight, smell, taste, and hearing were all perverted and exalted, and that these evidences of excitation were not the result of fancy, I thoroughly satisfied myself by unerring tests. In these cases, as in a number of others that enter as factors into the experience that guides these observations, the after-effects were only less unpleasant than the primary, and were disagreeably persistent. Now observe the effects of applications by the method of central galvanization in the same patients. The same tension of current caused a decided metallic taste (but no vertigo and no ringing in the ears), with a slight feeling of fulness about the head, and a persistence in this form of treatment resulted in grateful relief. In consideration, therefore, of these facts, we should ever be watchful for these susceptible cases; and to avoid errors of judgment that might prove unfortunate, we should not presume even on the most extended experience, but should in the beginning pursue a tentative course. In the second place, we have in cerebral effusion and softening, and more especially in cerebral congestion, conditions that call for care, in any method of galvanizing the nerve-centres. In old apoplectic cases transverse galvanization of the head has often been used with no unpleasant results, but this certainly is no reason why it should be thus used. There can be no doubt that it might in many instances prove exceedingly hazardous, and I have seen unmistakable evidence of the ill effects (in producing dizziness and nausea) of an injudicious application of localized faradization in the neighborhood of the base of the brain. It is in the consideration of the symptoms of cerebral congestion, however, that we see most clearly the importance of rightly selecting our methods of electrical treatment. To give any direction to the current, excepting a longitudinal one, by which I mean from the summit of the head downward, or from forehead to occiput, is, I believe, not only unphysiological, but, as well, contrary to the teachings of all extended and carefully guided experience.

In this connection, and especially with reference to central galvanization, an exceedingly important practical point arises concerning *polar influence* and *current direction.*

Is the position of the poles, or the direction of the current, the more important factor in the production of therapeutical and purely physiological effects?

It must be acknowledged that the contraction laws of Pflüger render it quite possible that in the electrical stimulation of a given nerve-piece, the polar influence has more to do with the resultant physiological effects than the direction of the current.

These laws are thus formulated: "The nerve is excited by the appearance of anelectrotonos and by the disappearance of catelectrotonos, but not by the appearance of catelectrotonos and the disappearance of anelectrotonos." More specifically, Pflüger's laws may be thus stated:

First. "The mildest currents applied to the nerve cause contraction only on closing the circuit independently of direction.

Second. "Currents of medium strength cause contraction both at closing and opening in both directions.

Third. "Strong descending currents cause contraction only at closing the circuit, while strong ascending currents cause it only at opening."

Although it is impossible to illustrate these laws by clinical experiments on patients, they can be readily verified on the fresh nerve of an animal. In experimenting on one's self or upon others, the strongest current that can be well borne produces the effect only that follows the application of a very mild current directly to the nerve; viz., contractions only on closing the circuit independently of direction.

The French school, and notably Legros and Onimus, deny the efficacy of polar influence in exciting physiological phenomena, ascribing them chiefly to current direction. They ascribe anelectrotonic effects to electrolytic action, and to the induction of currents of polarization. In support of Pflüger's laws, on which are based the theory of polar action, I refer to some interesting experiments by Dr. Mason, published under the title of "The Polar Action of Electricity in Physiology," in the *New York Medical Journal* of December, 1874.

Now in central galvanization proper we generally understand that the anode is above and the cathode below, and according to the theory that polar influence is the chief cause of physiological phenomena, this position of the poles in central galvanization would seem, on physiological grounds alone, to be chiefly indicated for the relief of symptoms of central origin. The teachings of experience at all events strongly confirm its propriety.

It is very certain that in many conditions, and especially in neuralgia and spinal irritation, therapeutic effects vary according to the position of the poles.

In central galvanization also, few facts are better established in my mind than that certain conditions, such as cerebral congestion and forms of hysteria, may be injured rather than benefited by what are termed ascending currents, but whether the ill effects are due to polar action or current direction, I am not prepared to say.

When we come to the consideration of general faradization, we enter upon one of the most, if not the most, important departments of electro-therapeutics.

General faradization is a term that has become somewhat familiar to the professional ear since we first introduced it eight years ago, but its rationale, its modus operandi, and the necessity of thoroughness in the details of its application, are illy appreciated.

When we reassert the idea enunciated at that time, that electricity is not only a stimulant but a tonic of great power, we do not refer to electricity *per se*, if the idea may be thus expressed, but to electricity used after the method of general faradization, which in its most thorough form demands that the whole body, nerves, muscles, and all organs of special function, be, so far as possible, brought under the influence of the current.

When, therefore, persons declare that they have tried electricity on many occasions, and have failed to perceive any tonic effect, the idea is immediately suggested, that the fault lies in the operator, and not in the agent or method employed. The successful employment of general faradization requires, of course, a certain amount of anatomical and physiological knowledge, but it is not for lack of this that so large a proportion fail to appreciate its power. The most thorough students of the principles of electro-physiology are frequently among those who are most deficient in the practical manipulating skill that comes only from long experience and patient labor. If it were possible, as it is not and never can be, to relegate the administration of general faradization to nurses and attendants, the method would undoubtedly soon come into very general use, and its remarkable therapeutic powers, especially as a tonic, be everywhere recognized. Dr. Vater, of University of Prague, has, in a series of articles in "The Wiener Medicinische Zeitung," borne abundant testimony to the wide and varied therapeutical effects of general faradization. Instead of subjecting the method to the test of theory alone, and then in his ignorance rejecting it, he has put it to the severer and more conclusive test of a patient and discriminating clinical investigation. He concludes that if the nervous system be thoroughly influenced, and the muscular tissues not too violently, but passively exercised, tonic effects may be pretty uniformly expected; that they are more readily observed in nervous organizations, and that they are as permanent as those following any other remedy.

Benedict, one of the most able and indefatigable of investigators, says that, "especially in insomnia, even of lunatics in migraine and general nervousness, he has observed the most beneficial results." In general galvanization, substantially the same processes are to be followed out as in general faradization, substituting of course the galvanic for the faradic current. It is not often that this method (somewhat heroic certainly, if any considerable strength of current be used) is indicated in the treatment of disease. It produces effects too profound both reflexly and directly on the central and peripheral nervous system, to be tolerated in the majority of those conditions of nervous prostration that so readily amend under general faradization.

All who have had a wide practical experience in electro-therapeutics have undoubtedly on occasions found themselves surprised and in perplexity on account of the remarkable insusceptibility of certain cases to the influence of the ordinary methods of electrization.

Some years since, I observed in a patient suffering from disease of the supra-renal capsules, this insusceptibility to a marked degree.

In its relations to electricity, the nervous system seemed to be profoundly anæsthetic.

The patient was perceptibly strengthened by general faradization, although it was necessary to use enormous power to make any sensible impression upon him, but beyond a certain point of improvement these applications failed to be operative. The patient was then submitted to general galvanization. The usual effects of galvanization of the cervical portion of the cord and sympathetic, viz., metallic taste, increased flow of saliva, and involuntary contractions of the œsophagus, became manifest only under currents of considerable tension, and the power that the patient could bear without inconvenience far exceeded what was obtainable from the thirty-six-cell apparatus that I had at hand.

A decided improvement was immediately manifest in the condition of the patient, and as his strength increased it became in due proportion more and more susceptible to the influence of the applications.

TRACHEOTOMY AS A PRELIMINARY TO EXSECTION OF THE SUPERIOR MAXILLA.

EXTRACT FROM REMARKS ON TRACHEOTOMY MADE BEFORE THE KINGS CO. MEDICAL SOCIETY, BROOKLYN, N. Y., OCT. 19, 1875.

By LEWIS S. PILCHER, M.D.,

ADJUNCT SURGEON, LONG ISLAND COLLEGE HOSPITAL, N. Y.

Tracheotomy is of interest to the operative surgeon in connection with operations involving the cavities of the mouth and nose, attended with profuse hemorrhage; more especially that for removal of a part or the whole of one of the superior maxillæ. To those familiar with these operations no words are needed to magnify the difficulties which arise from the impossibility of maintaining complete anæsthesia, and from the dangers of the blood entering the larynx. The haste of the surgeon, the struggles and cries of the half-anæsthetized patient, and the free hemorrhage make the scene one of the most startling of any incident to the surgical art. In such cases as these it is that tracheotomy presents itself as a measure preliminary to the more important surgical procedure, whereby the special terms and difficulties of such operations are removed, and it made possible that the most extensive and delicate operations about the mouth and nose should be conducted with as much care and deliberation as in any other part of the body.

I have been able to prove this in my own experience in a case of tumor of the superior maxilla, in which I was called upon to operate by Dr. P. R. Cortelyou, of this city, under whose care it had been.

The patient was a lady, over sixty years of age Less than six months had elapsed since any trouble about the face had been noticed. The external deformity was but slight. It had encroached as yet only upon the nasal passages, and every indication pointed to an easy and thorough eradication of the entire diseased portion. At the earnest request of the patient, the operation was undertaken. Tracheotomy was performed as its first step, and during the remainder of the operation, ether was administered through the tracheal canula. As the operation progressed, the disease was found to be far more extensive than had been expected. The entire superior maxilla, with the palate, the lateral mass of the ethmoid, and the body of the sphenoid were infiltrated with, or largely replaced by, encephaloid material. It was impossible to remove all without opening the cavity of the cranium, short of which only I desisted. Troublesome hemorrhage was experienced only from the posterior palatine artery. This was quickly controlled by the galvano-cautery in the hands of Dr. Geo. R. Fowler. The patient rallied from the operation and lived for more than a month, finally succumbing to cancerous disease of the liver, which rapidly developed itself after the removal of the first growth.

But it is not for the purpose of recording all the details of this interesting case that it is reported. It may indeed be a question whether the operation ought ever to have been undertaken. Be that as it may, no case could possibly illustrate more forcibly the great value of a preliminary tracheotomy in extensive and complicated operations involving the nasal and buccal cavities. An amount of care and deliberation, of thoroughness and confidence in each step of the operation was secured, which otherwise would have been impossible, however bold, confident, skilful, and experienced the operator might have been. That I am not alone in this opinion I am persuaded by the exclamation of one of the older and more honored physicians of this city, who was present at this operation, that he hoped he would never again see exsection of the upper jaw attempted without tracheotomy first having been done. A similar feeling had been experienced by myself more than two years ago, when I witnessed an exsection of the superior maxilla by Prof. Wm. Warren Greene, and extirpation of an eye by Dr. Prout, in the same patient, in immediate succession, tracheotomy having first of all been done.

This method of procedure was adopted by Dr. Jas. L. Little, of New York City, last winter, in operating for removal of a large fibroid tumor, occupying the posterior nasal and the upper pharyngeal region, with brilliant success. I am informed that this use for tracheotomy has of late obtained large favor among certain German surgeons, but of this I have no data. I make no pretence of making an exhaustive discussion of the history of this use of tracheotomy. I have desired merely to take the opportunity, when attention is being directed to this operation in its general relations, to call attention to this one use to which it has been put. I am aware that it may be objected that tracheotomy adds new elements of danger to dangers already great enough. But I believe that an examination into its merits will compel the conclusion, that its dangers are too slight to be permitted to outweigh the benefits which its performance brings.

In the adult, performed with deliberation, through healthy tissues, the tracheal wound kept open but for a few minutes, it becomes a comparatively simple and innocent proceeding.

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Transactions of the Medical and Chirurgical Faculty of Maryland. Seventy-seventh Annual Session, held at Baltimore, April, 1875.—This pamphlet of 226 pages contains the minutes of the meeting, reports of officers and committees, lists of members, and the following papers: Annual Oration: "Contribution to the Medical History and Physical Geography of Maryland," Joseph M. Toner, of Washington, D. C.; "Report on Surgery," Thomas R. Brown; "Report of Section on Materia Medica and Therapeutics," Richard McSherry; "Report of Section on Obstetrics and Gynecology," William T. Howard; "Report of Section on Anatomy, Physiology, etc.," W. C. Kloman; "Surgical Cases in Foreign Hospital Practice," G. H. Boyland; "The Contagium Particles of the Eruptive Contagious Fevers: their Nature and Mode of Action," J. E. Atkinson; "Tinnitus Aurium: a Consideration of the Causes upon which it depends, and an Attempt to explain its Production in accordance with Physical Principles," Samuel Throbald; "On Altitude and Climate in the Treatment of Pulmonary Phthisis," W. Gleitsmann; "Importance of the Galvanic Current in Electro-Therapeutics," F. T. Miles; "Digitalis in Cardiac Disease," S. C. Chew; "Treatment of Paralyzed Muscles by Elastic Relaxation," John Van Bibber.

Original Lecture.

CLINICAL LECTURE ON A CASE OF TYPHOID FEVER

COMPLICATED BY INTESTINAL HEMORRHAGE AND BRONCHO-PNEUMONIA.

By FRANCIS DELAFIELD, M.D.,

ADJUNCT LECTURER ON PATHOLOGY AND PRACTICAL MEDICINE IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

Gentlemen:—The case before us suggests a few points relating to the treatment of typhoid fever. The history of the patient is as follows: She is twenty-eight years of age, and was admitted to the hospital September 11th, 1875. She then stated that she had enjoyed an average degree of health previous to her present illness, but that on the 6th of September she began to feel "creeping chills" over her body, which continued more or less up to the time of her admission, and were accompanied by headache and fever. Upon admission her temperature was found to be 102° F. in the morning, and 103¼° F. in the evening; there was slight tenderness in the right iliac fossa; there was no tympanitis, however, but there was a slight amount of bronchitis. From the time of her admission up to the 23d of September her temperature was 102° F. in the morning, and 104–104½° F., and occasionally 105° F. in the evening. The patient during all this time was quite comfortable, and did not appear to be suffering from severe constitutional disturbance. The tongue was slightly dry; there was a slight accumulation of sordes, and there was a little diarrhœa—from two to four discharges every twenty-four hours. Her treatment consisted mainly in the administration of food, chiefly milk, and an occasional sponging of the body with cold water. Although from the 11th of September until the 23d of that month her temperature was constantly elevated, she received no cold baths, but merely took her regular supply of milk; sometimes a small amount of whiskey was added to the milk, when the pulse was not as good as desired, and from time to time she was sponged off with cold water.

On the 23d of September she began to have hemorrhage from the bowels. This continued for several days, and at times considerable quantities of blood were discharged, so much so that it was deemed wise to endeavor to arrest it.

For this purpose tablespoonful doses of the following mixture were administered every three or four hours:

℞. Ac. gallic.	ʒ i.
Ac. sulph. ar.	ʒ ij.
Syr. aurantii	℥ ij.
Aquæ	℥ iv.
M.	

Under this treatment the hemorrhage was soon arrested and has not returned.

Between the 25th of September and the 5th of October her temperature gradually became lower, both in the morning and in the evening, so that at the latter time it rarely went above 103° or 103½° F. During this time the diarrhœa continued to a moderate extent, but was easily controlled by the administration of opium.

On the 30th of September she was ordered a mixture, consisting of the sulphate of quinine and dilute sulphuric acid in such quantities that each dose contained three grains of the quinine and twenty drops of the acid. This was administered three times a day. On the 5th of October, the temperature remaining about the same, a physical examination of the chest was made, and over both lungs were found evidences of broncho-pneumonia, namely, areas of dulness and sub-crepitant râles.

Here then was one of the reasons probably why the disease had lasted for so long a time. On October 10th her morning temperature for the first time was 99½° F., and the evening of the same day it was 102¾° F. Since that date until the present, October 26th, the temperature has been gradually falling, and has finally reached 99° F. in the morning, and 101° F. in the evening. The diarrhœa has gradually diminished, and the passages have become quite natural. The physical signs in the lungs have almost entirely disappeared. At no time has the patient had any cough.

Such is the general outline of the history of the case. Just at present the treatment of typhoid fever by means of cold baths or cold affusions, or by the administration of quinine in large doses, is much in vogue. The theory of this treatment is based upon the assumption that the chief cause of death in uncomplicated cases is a long-continued elevation of temperature.

This doctrine is derived chiefly from the teachings of Liebermeister. It is assumed that the greater number of deaths from typhoid fever are due to the effect of the fever heat. As a direct result of this fever heat, we are pointed to the parenchymatous degeneration of the muscles and viscera found after death. We are told also that paralysis of the heart is a frequent cause of death, and that this paralysis is due to a degeneration of the wall of the heart, resulting from the fever heat.

I think, however, that these views are as yet assumptions rather than facts.

In the patients who have died from typhoid fever in New York during the past five years—not a large number—degeneration of the muscles has been the exception and not the rule. Parenchymatous degenerations of the spleen, liver, and kidneys, however, are very frequent. But are we warranted in asserting that these degenerations are only the results of the fever? I think not. For we find the same degenerations in other diseases which are rather marked by their malignity than their high temperature. In puerperal peritonitis parenchymatous degeneration of the glandular viscera is almost always found, although the disease may not have continued for more than twenty-four or thirty-six hours, and by no means is necessarily associated with a high temperature. I have even seen it in peritonitis without any elevation of temperature. So also the same changes are found in fatal cases of pyæmia, in the more severe forms of pneumonia, and are sometimes seen in the viscera of patients who die from cerebro-spinal meningitis. In other words, in those patients who die from diseases which are strongly marked by constitutional symptoms, or run a peculiarly malignant course, we very commonly find parenchymatous degeneration of the glandular viscera.

The disease in which such parenchymatous degeneration is specially marked is acute atrophy of the liver, and this may be attended with a very moderate increase of temperature. Still farther, in many patients sick with typhoid fever there is enfeebled action of the heart, but such an enfeebled action is not by any means always in relation to the severity of the fever. It is not in the patients who have the highest temperature that the heart's action is always the most deranged. On the contrary, in some of the very mildest cases of typhoid fever, and also in some of these cases at a very early period of the disease, we may meet with enfeebled action of the heart. For example, such a case as would be marked by a morning temperature of 99° F., and an evening temperature of 102° F., and one which has lasted for a week, may give us well-marked feebleness of the heart's action, as indicated by a soft dicrotic pulse and a feeble first sound. In these cases the character of the pulse can be improved at once, as a rule, by a proper administration of stimulants.

So much for the theory upon which the treatment is based. The treatment itself, on the other hand, is very excellent in appropriate cases. When judiciously used cold baths may save the lives of very many patients, hence the treatment is one worthy of every consideration. You may ask why did we not give this patient cold baths? I do not think we are to judge of the necessity for the use of baths merely from thermometrical observations. I do not believe that the thermometer alone is a sufficient guide for their use, but that we must rather look at our patients, and determine what effect is being produced upon them by the fever. It happens very frequently that patients with a temperature of 101° F. suffer much more severely than others with a temperature of 104° F., or even 105° F. In other words, we are to be governed in determining the necessity for cold baths by the general appearance of the patient. If the patient has dusky cheeks, a dry mouth, a rapid respiration, with bronchitis and a burning heat of the skin, which can be appreciated as well by the hand as by the thermometer, you have a proper case for the use of cold baths. But in such a patient as the woman before us, whose temperature has been high, it is true, but whose skin has been slightly moist and comparatively cool to the touch, who has not suffered from severe diarrhœa, nor had a very dry tongue, scarcely anything would have been gained by the use of the bath. In a case where the use of cold becomes a necessity, the full cold bath is the very best form in which it can be employed. Place the patients in a large bath tub containing water at about 70° F., and let them remain for ten minutes, and repeat such a bath every two hours, if necessary, until their general condition is improved.

LOBULAR PNEUMONIA.

A bronchitis in cases of typhoid fever is an ordinary complication, but if an ordinary bronchitis becomes capillary, or a lobular pneumonia is developed, the condition of the patient is at once rendered seriously worse, and the temperature is commonly kept elevated, as it was in this case. The elevation of the temperature was the only natural symptom that this woman presented as indicating the existence of lung complication, and it was only by physical examination of the chest that the lung consolidation was detected.

Patients with typhoid fever apparently are capable of acquiring two entirely different kinds of broncho-pneumonia, and the probability of recovery, or of going on in the development of phthisis, seems to depend upon the kind acquired. If they acquire a simple broncho-pneumonia, such as was present in this case—a bronchitis complicated with a pneumonia—in which the air-cells were filled with the products of inflammation, but without any interstitial inflammation, they are very apt to recover. The consolidated portions of the lung resolve and the patients gradually get better.

If, on the other hand, the broncho-pneumonia, instead of having this simple form is a bronchitis accompanied by an interstitial pneumonia—a pneumonia affecting the walls of the air-cells and the interstitial connective tissues of the lung—then there is produced consolidation of lobules of lung tissue in which there is little or no tendency to resolve. They remain, and after remaining for a certain length of time these nodules become cheesy, and then the patient exhibits the regular symptoms of phthisis.

This is the manner in which a certain number of patients die who have had typhoid fever. They die of phthisis after having the fever, and the phthisis depends upon the development of a broncho-pneumonia, which involves the interstitial tissue of the lung and the walls of the air-cells, and shows but little tendency to resolve.

At the beginning of a broncho-pneumonia there is no way by which you can determine whether the one or the other of these conditions is present. This can be decided only by the progress of the case. But that there is such a difference in the type of the broncho-pneumonia, and that one is much more likely to proceed to a fatal termination than the other, I feel certain from the examinations which I have had the opportunity of making in such cases.

Progress of Medical Science.

Treatment of Broken Nose by Forcible Straightening and Retentive Mechanical Apparatus.—Mr. William Adams thinks that the subject of broken nose is one which has not been sufficiently noticed by the profession, notwithstanding that the resulting deformity and the interference with the voice and breathing are sometimes very great. He divides the so-called cases of broken nose into two classes, viz., (1.) Those in which the injury is limited to the anterior or cartilaginous portion of the nose, and consists essentially of depression, with lateral bending of the cartilaginous septum; a partial displacement of this septum from its attachment to the vomer also occurring in many cases. (2.) Those in which the nasal bones are fractured, in addition to the depression and displacement of the cartilaginous septum from the vomer. His plan is to straighten the bent cartilaginous septum and bring it into a direct line with the vomer, using for the purpose a pair of strong forceps with flat parallel blades, introducing the blades into the nostrils, and, in case of fracture of the nasal bones, raising these also by carrying the blades directly upwards.

External pressure can also be made by the hand to aid in the accurate adjustment of the parts. After this procedure he uses a steel compressor, consisting of two blades, joined together at their bases and moved by a screw, so as to approximate or separate the blades, which are inserted into the nostrils so as to support the septum, the screw being only tightened sufficiently to bring the blades into contact with the septum, but without making any pressure upon it. This apparatus can be worn for two or three days and nights without removal. After this he introduces into each nostril an ivory plug, which can be removed and reintroduced by the patient at pleasure, so that both nostrils are kept moderately distended, and support given to the cartilaginous septum.

Support of the nasal bones by any plug introduced in the upper part of the nasal cavity would be impossible, owing to its small size, and the sensitive character of the lining mucous membrane. For fractures of the nasal bones, Mr. Adams has used a retentive apparatus externally, consisting of a pad, adjusted by cog-wheels, and attached to the front part of a steel band, passing round the head, forming, as he says, a kind of nose truss. This truss can be worn, he says, for two or three weeks, according to the extent of the injury, and in a case referred to in his article, it was worn for a still longer period.

This forcible straightening of the nose does not have to be repeated, except in cases of great severity. In none of the cases which he cites did he have the opportunity of applying the treatment within a month after the accident, and he thinks that undoubtedly its employment would be more easy and more effectual in proportion to the early period at which it was employed after the accident; but, of course, should there be much swelling and ecchymosis, it would be better to wait until these symptoms had subsided. In recent cases, however, it may not always be necessary to employ any retentive apparatus.—*The British Medical Journal*, Oct. 2, 1875.

Andral on Glycosuria.—In the *Gazette hebdomadaire* for April 16th, 1875, we find an analysis by Andral of eighty-four cases of glycosuria of which he had kept notes. It appears that the disease is very rare under 20 years of age, less rare between 20 and 30, most frequent between 40 and 50, little less so between 50 and 70, and very rare after the latter age. Of the eighty-four there were fifty-two males and thirty-two females. Various nervous affections seem to have an influence in developing or aggravating the glycosuria; a deficiency of food amounting almost to starvation led to the disease in four cases. On the other hand, Andral has observed that many of these patients have been notably strong and vigorous before the development of the diabetes. An accidentally complicating disease will often cause a temporary diminution of the sugar eliminated; as for example an angina and a dysentery. A degree of hereditary influence was observed. While the general circulation ordinarily exhibits no lesions, the capillary circulation often does so, as, *e.g.*, in swelling and redness of the gums, injection of the conjunctiva, erythema of the skin and congestion of the lungs. There were four cases of gangrene among the eighty-four; viz., once in the lungs, and three times in the feet and legs. The acid reaction of the saliva that has been observed may be due, according to Andral, to an admixture with the ordinary mucus of the mouth. At the autopsies he constantly observed congestion of the liver and kidneys, attributable in the latter, at any rate, to excessive functional activity. There was also a peculiar induration and dryness of the spleen. Tubercular granulations were commonly found in the lungs, which Andral regards as secondary deposits due to the debility caused by the diabetes. No new points were brought out regarding treatment.

Production of Red Blood-Globules in Typhoid Fever.—M. Cornil has found in the blood of the spleen of patients who have died in the third week of typhoid fever, large numbers of white globules, enclosing red globules to the number of five, six, or even more, in a single cell. Other cells enclosed granules of hematosine. Although the existence in the blood of these large cells containing red globules is nothing new, nevertheless Cornil is the first to insist upon their multiplication in typhoid fever. The mesenteric glands, according to Cornil, are always inflamed in typhoid fever, in a manner analogous to the acute or subacute inflammation due to suppurative lymphangitis.—*Lyon Médicale*, Aug. 22, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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NEGLECTED BRANCHES OF MEDICAL STUDY.

When we scan the schedules of lectures in the medical colleges in their busiest seasons, we find an amount of occupation outlined for the whole didactic course, apparently over-sufficient for the grasp of ordinary scholastic minds. If we had not ourselves passed through the same ordeal, we might naturally wonder what time was left for the student, wearied with a continuous train of lectures, clinics, dissections and examinations, to minister to such slight personal attentions as are embraced in the provinces of eating, drinking and sleeping. That the branches taught must be considered by their teachers good and amply sufficient, may be inferred from the fact that the best of our schools have plodded along in the same groove for a number of years, with but little change of programme. So far as length of study, methods of examination of candidates for graduation, and similar very practical matters are concerned, we have at this moment nothing to observe; these have often been discussed and are still amenable to a just and rigid scrutiny. It might seem like superfluous criticism for us to intimate that this mass of learning, which is to be packed away in a winter's session, has in it any element of insufficiency; and yet it is evident, at the most superficial glance, that several branches which may in due season become all-important to the practitioner, receive no attention at the hands of the lecturer, or are clothed in the scantiest of material to hide the nakedness of their treatment. Notably among these may be mentioned Medical Jurisprudence, Pharmacy, and Practical Hygiene, while Chemistry is too often taught tediously in all its non-medical minutiæ, its medical relations being accidentally hinted at only when a convenient occasion arises. The History of Medicine is necessarily pushed aside, far out of sight, by the more practical branches, and left as an after-study for the curious and an accomplishment for the professional virtuoso. Half a century ago, however, when the University of Virginia was founded, even this last subject was embraced, with the other neglected branches just named, in the curriculum of instruction. Needing most of these important aids when he settles down to the sterner realities of medical life, the graduate finds when he has most urgent occasion for their service, that some of the tools which he is expected to skilfully handle are rusty from disuse, and that he must hastily get them in order for the emergency in which they are to become of practical utility, after his own untutored fashion, perhaps nervously and imperfectly, at a time when the eyes of a whole community may be fixed upon him. He may be pardoned at such a moment for thinking that the system of instruction which seemed so perfect to him as a student must have been full of glaring deficiencies.

So far as the teaching of Pharmacy is concerned, there is no reason why it should be so thoroughly isolated from the medical courses, and left entirely to the pharmaceutical colleges. Thousands of medical men throughout the country are necessarily their own apothecaries, and many of them travel in a circle as prescribers in the well-trodden footsteps of their routine-loving preceptors, often confining themselves to the employment of a few old-fashioned remedies, merely because they have never had imparted to them during their student-life the general principles of manipulation and preparation of drugs and chemicals. They are only roused to a just appreciation of the claims of Practical Hygiene, when a virulent epidemic "at one fell swoop" simultaneously sweeps away their patients and their own reputation as skilful practitioners. They then impatiently overhaul their text-books, and "when found, make a note of it," for the next epidemic, which may never visit them; but their attention has never been excited to the means of prevention of the more common diseases which are daily present at their very elbow. Medical Jurisprudence is shamefully neglected; a mere smattering of information as to its toxicological relations is sometimes acquired in the schools from incidental mention by the teacher of the department of Materia Medica, but the great mass of the profession is wofully ignorant of the medico-legal complications in which practitioners may sometimes be seriously involved. It should be borne in mind that medical experts are not the only ones who are likely to be summoned as witnesses in judicial cases. Every village doctor may some time or other occupy a creditable or a ridiculous position on the witness-stand, according to the extent and variety of his information on questions of medico-legal import. In many of the schools, Medical Jurisprudence is tacked on as a supplement to another branch, in some of them a teacher being in the same session professor of both Institutes of Medicine and Medical Jurisprudence: but, even when so taught, it occupies but a subordinate place, not at all commensurate with its merits, and under such circumstances still deserves to be classed among the almost neglected branches. Occasionally it is offered to slender summer classes as a temporary placebo, but although sometimes excellently taught, it even then does not assume its deserved prominence, and fails to reach in its influences the greater masses of the more important winter classes, from which the ranks of the profession are most numerously recruited.

Reviews and Notices of Books.

The Borderland of Insanity. By Andrew Wynter, M.D., M.R.C.P., London. New York: G. P. Putnam's Sons, Editors.

This book is composed of a collection of papers on insanity and collateral affections. Its title is attractive, if its subject is not; but the treatment of it is rendered acceptable, and sometimes attractive to non-professionals, by the clearness of the exposition and common-sense of the judgments.

Almost everybody will be attracted by the title of the book—which is also the special subject of the first essay—to know how far they are in or out of the borderlands of insanity. For the peace of mind of most readers the question is solved, not didactically, but historically, in a series of anecdotes, out of which the reader may choose to make or not the application to his dear self.

The chapter on *Non-restraint in the treatment of the insane* is the most thorough and far-seeing. It comprises the early history of the treatment by faith, by fear and force. It recites the efforts of Pinel (1792) to Conolly (1840), as if the two were from the same heart and mind. It shows that to the brutality of the treatment of George III., during a fit, is due the Parliamentary inquiry of 1815, which turned the scale towards humanity to the insane. It is far from approving of the *reform* which does not *compress* the insane in iron manacles, iron cages, etc., but *confines* them, of all classes and degree, in long lonely halls, where they can enjoy the sight of each other, or worse still, to crouch behind a door, shutting their eyes with their fist, or covering them with a curtain of their hair, either dumb, mute, or yelling with rage or desperation. Dr. Andrew Wynter does not give his approval to the bills of expense incurred in the erection of palaces, which, far from being the proper treatment of the insane, are little more than enlarged strait-jackets, made of stone. He turns a regard, as of hope, toward Gheel, where the insane are free in a cottage or hut, with his *mourricier* and family, partaker of their board, labors, pleasures, beer, pipe, etc. The narrative shows that it is made up from descriptions—Drs. Webster's, Neuschler's, etc. But Dr. Wynter does not appear to have visited the quaint old village, otherwise his sense of observation would have made him contrast the satanic expression of the insane of the *restraint* (as painted without exaggeration by Hogarth), the empty or searching look of the shut-up ones, with the undiscernible countenance of the hosts of the Gheel's peasantry.

If Dr. W. had visited this place he could have seen that Ste. Dympna is rather antagonistic to the present treatment. The writer of this note had the honor of a conversation with a *Beguine* attached to the church, who, thinking he was in quest of a place for some relative, told him distinctly that the doctor beyond was losing all his patients; that they, in the building adjoining the church, could alone cure mine; and she proceeded to show the *institution*—a room with two beds, a closet with another, garnished with chairs, and a benign St. Francis, looking towards the empty couch. They brought there the rude iron probang, fork, and other instruments, to force the patients to eat, to be silent, motionless; the old *(poire d'angoisse)* choke-pear, etc. The middle room had a most serious aspect. An immense stone chimney, with rings in the wall, below for the legs, higher for the wrists, following an oblique line from a corner of the hearth to its axis; nothing else, but opposite an oaken gallery, wherefrom could be securely directed the torture, exorcism, and the other Christian parts of the *moral treatment*; for, said the Beguine, insanity, being a disease of the mind, must be treated by spiritual means; so said Torquemada. However, the rusty rings do not seem to be now used.

The skilful physician of the asylum, Dr. Bulkens, has a great deal to ignore about this holy place. His predecessor, Dr. Parigot, though a man of great energy, had his back broken by Ste. Dympna, who is determined to defend dearly her last days of practice. Considering the impossibility under which Dr. W. labors of telling everything about Gheel, his narrative is very interesting.

Of the other parts of the book, we will mention only *the training of the imbecile*, which is truly a topic belonging to the *Borderland of Insanity*.

The subject is treated from a purely English point of view, which gives its treatment a character and a weakness. The introduction, in which the treatment of idiots in county poor-houses or at home is shown insufficient, does not leave anything to desire; the history of the institutions is bare from the picturesque enthusiasm with which devoted women, Drs. Reed, Conolly, and others, aroused even royal blood in behalf of their protégés. The Colchester asylum, Essex Hall, is sufficiently described, and the great Earlshood asylum is expatiated upon at great length. The training of the children takes a part, their peculiarities another, and the qualities of the late superintendent, Dr. Langdon Down, the third of the narrative. The episode of the idiot who built a model of the *Great Eastern* is well told; more on the technicalities of the training would have spoken well for the competency of Dr. Wynter to treat this question; but it would have been easy to go in it too deep for the average of readers. For this average, the remnant of the book contains good, simple, and practical advice, referring to the several emergencies in which women and men may need the support of strong reason to keep on the right side of the borderland of insanity.

For the English public, the book does not contain the description of the asylums for idiots, of Normanfield, Lancaster, and others of more recent creation; and for the American public a comparison of our institutions for feeble-minded children with the English would have been highly interesting. But everything cannot be comprised in a small volume, printed in large type, and easy to read, even by those who are on the borderland of insanity.

The Diseases of the Heart and of the Aorta. By Thomas Hayden, of Dublin, Ireland. Reprint by Lindsay & Blakiston. 1875.

A treatise on the diseases of the heart and of the aorta, in two large octavo volumes, comprising altogether more than 1,200 pages, appears to be a ponderous and uninviting work. And yet a study of Dr. Hayden's book convinces us that there is not an unnecessary page. It really constitutes a small library on the subject of which it treats. So comprehensive and so full are the quotations from every author of any note, that we can learn from this book alone almost everything which is now known concerning the anatomy, physiology, and diseases of the heart.

The chapter on the physiology of the heart, the causation of the heart sounds, and the rhythm of the cardiac cycle is fairly exhaustive.

All the published theories concerning the causation of cardiac murmurs are given. The author, however, does not admit of the existence of pure tension murmurs. He holds that murmurs are dependent on vibration, and the essential cause of such vibration is the friction of the blood current. He admits of murmurs occurring before systole, with systole, after systole, with diastole, and after diastole.

Murmurs produced at the tricuspid valve are to be heard, says the author, within an area of an irregularly triangular figure, having its base at the level of the ensiform cartilage, and extending from the middle line of the sternum to a point in the left fifth intercostal space about an inch to the inside of the apex. The vertex of this triangle would correspond to the lower edge of the left fourth costal cartilage near the sternum; and its sides to two oblique lines connecting this with the extremities of the base.

Of the presystolic murmur he gives a very full account. He assigns the honor of identifying it to Fauvel in 1843. He believes:

1. That presystolic murmur is pathognomonic of auriculo-ventricular narrowing;
2. That it is never present where auriculo-ventricular narrowing does not exist;
3. That it is never permanently absent in cases of this lesion, and that it is very seldom temporarily absent.

Pericarditis, diseases of the substance of the heart, endocarditis and diseases of the valves, bloodclots and neuroses of the heart, are all treated of in the same complete and satisfactory manner. Not the least valuable feature of the work are the tables of cases of the different varieties of disease, compiled in large measure from the Transactions of the Pathological Societies of London and Dublin.

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Preservation of Morphia Solutions.—It is asserted by M. Vidal, that the addition of chloral to a solution of morphia renders it much less liable to spontaneous change. This fact, if it be true, is important. The alteration which concentrated solutions of morphia undergo renders their strength variable and uncertain if they are laid by for a time. M. Vidal adds to the solution a quantity of chloral equivalent to twice the weight of the morphia it contains. He affirms that the injection of this mixture is not painful.

The Sunflower as a Preventive of Miasma.—A correspondent of the *Soil of the South*, writing from a place in Alabama, which he says was peculiarly subject to fevers, gives the result of his experience in the premises, and in not a single instance where he planted sunflowers around his negro cabins did their inmates suffer from fevers; while his wife, two children, and two house servants, all had fevers, he not having planted any of the sunflowers around his own dwelling, which, in his opinion, accounts for the difference in the results.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 27, 1875.

Dr. F. Delafield, President, in the Chair.

METASTATIC ROUND-CELL SARCOMA OF LUNG.

Dr. C. Heitzmann presented specimens of sarcoma, with the following written history:—

This specimen of tumor was removed from the body of a man, aged 69 years. It had existed in the groin as a wart-like prominence, the size of a pea, ever since birth, and had not troubled him until within the past three years, when it became sensitive, and the patient desired its removal. Dr. Schöney, the attending physician, performed the cauterization by means of nitric acid, which after several applications proved satisfactory, the surface healing kindly. A few months afterwards there appeared a hard infiltration and ulceration on the place of the scar, which were not present at the time of the first operation. In the course of eight months the infiltration developed to the circumference of the palm of a hand, and the height of about three-fourths of an inch. This tumor was extirpated by Dr. Schöney, by means of Maisonneuve's flèches. After the slough fell away, there appeared a healthy-looking granulating surface, and this healed up within a fortnight.

In the course of a month a growth reappeared in the neighborhood of the almost invisible cicatrix; first outward of it, but afterwards towards the scrotum. These tumors grew gradually, forming several elastic, pretty soft nodules, altogether of the size of a man's fist. The growth was now declared, by several prominent consulting surgeons of this city, as cancer, and ulceration was expected. Meantime the patient became exhausted, emaciated, his right leg œdematous; he began to suffer from cough, finally from dyspnœa, and he died, after severe suffering, at the age of 69 years, in February this year, two years and eight months after the first operation.

A few weeks before death, I got, through the kindness of Dr. Schöney, the sputa of the patient, and by microscopical examination of the sputa I was enabled by the presence of copious round elements, provided with large nuclei, to make the diagnosis of round-cell sarcoma tumors in the lungs, which being metastatic or secondary tumors, allowed the diagnosis of the presence of a tumor of the same kind in the primary locality. The post mortem examination, made by Dr. Schöney, proved the presence of innumerable grayish-white nodules in both lungs, of the size of a millet-seed to that of a walnut; namely, secondary sarcomatous tumors. The original tumor in the right groin showed nodes of almost walnut size, of a bluish-red color, and of a pretty soft consistence, which were separated from each other by a small amount of connective tissue. The covering skin was thinned, extended, but nowhere ulcerated.

The microscopical examination shows a tumor of rather uncommon construction. We see very large elements either of the appearance of epithelium, or that of ganglia arranged in irregular rows within the delicate connective tissue, moreover also in irregular alveoli. On other places we find an infiltration of the connective tissue, with large elements, alike those of round and spindle-cell sarcoma. Plenty of relatively large capillary blood-vessels are to be seen, even in the midst of sarcomatous elements.

We then have to deal with a tumor, called by Billroth "alveolar sarcoma," partly exhibiting the exquisite feature of a round and spindle-cell sarcoma. Apparently the tumor was first of all a cancer, growing out of a papillary wart-like tumor, which by and by, after being operated upon, changed its character to that of a sarcoma. That, however, the tumor is a real sarcoma is proved by the presence of the secondary tumors in both lungs.

NEUROMA IN AXILLARY SPACE, IMPLICATING MUSCULO-SPIRAL—OPERATION.

Dr. C. K. Briddon presented a specimen of the above, with the following history:—

Mrs. Sophia Davis, native of New Jersey, consulted me during the past summer (1875) in relation to a tumor which had been present in her axilla for some years.

She informed me that twenty-five years ago she began to suffer pain, concentrated in a small space over the back of the right wrist joint; it was unaccompanied by heat, redness or swelling, and gradually increased in severity, until after years had elapsed it would at times amount to almost unendurable agony. Four years ago this pain began to radiate downwards to the thumb, index, and middle finger, and she began to suffer from pains in the arm and fore-arm, involving the whole extremity, but most acute in the posterior and outer regions; the character of these pains varied—at times a continuous aching, more frequently lancinating, and associated with sensations as if needles were being thrust into the part; at other times sensations of creeping and crawling; but the most severe were the lancinating pains, which would occur so frequently as to prevent her obtaining more than two or three hours' sleep out of the twenty-four. No treatment has afforded her the slightest alleviation. When the pains began to shoot up and down the limb she commenced the use of faradization, and it was at that time that the tumor was first discovered; it was then very small, but under the stimulus of the current it rapidly developed in size, and the pains became more intense.

Present Condition.—Patient is a woman of fifty-eight years, and looks young considering the pain she has endured for so long a time; she is of spare habit; her right upper extremity appears to be as well nourished as its fellow, and there is no anæsthesia or motor paresis. In her axilla is a tumor about the size of a billiard ball; it is situate apparently about the centre of the space, bulging the anterior wall slightly, the floor scarcely at all; it can be moved readily from before backwards, but not in the direction of the axis of the limb; traction on the tumor causes pain which radiates down the back of the arm, forearm, and hand; pressure applied from before backwards produces pain in the whole extremity.

Diagnosis.—The pain which centred for so many years over the back of the wrist was probably situate in the gangliform enlargement of the posterior interosseal branch of the musculo-spiral, which distributes filaments to the ligaments and articulations of the carpus. For a long period of time the radiating pains were confined to those territories supplied by the musculo-spiral, but as the enlarging growth involved the associate branches of the plexus, the whole extremity became affected, and it was more difficult to analyze the distribution of pain.

Prognosis.—As to recurrence if removed, very doubtful; equally so regarding pain, which sometimes persists after section or removal of a portion of nerve that has been the seat of persistent neuralgia. We have also to take cognizance of the local changes that will probably ensue in parts supplied by the nerves—disturbances of nutrition, wasting and contraction of muscles, annihilation of sensibility, diminution of temperature, possible affections of joints, skin and its appendages.

I expressed an opinion, based upon the whole history of the case, that the tumor in the axilla was a neuroma involving primarily the musculo-spiral at or near its origin from the plexus, and I advised its early removal.

Operation was made October 20th, 1875, at 11 A.M., in the presence of Professors Erskine Mason, John T. Darby, Chas. A. Budd, and Drs. John Howe and Stephen J. Clark. An incision six inches long was carried from the humeral to the thoracic boundaries of the axilla, midway between the anterior and posterior folds. After division of the superficial and deep fascias, the dissection was continued down until the areolar investment came into view; this was freely opened, the knife was laid aside, and the capsule was stripped from the tumor by aid of the fingers alone. When half the growth was separated from these connections, the internal cutaneous nerve came into view, closely embracing its thoracic aspect; this was detached by the fingers and the handle of the scalpel, and was drawn inwards. On the humeral side the ulnar nerve was exposed, separated, and drawn outwards. Both these nerves were adherent by connective tissue, but were not incorporated with the body of the tumor. All connections were now severed, save above and below, at which points it was found the tumor was continuous with a large nerve, the trunk of which above could be traced high up into the apex of the axilla, to the point where it is given off from the posterior cord of the brachial plexus. On irritating the trunk below the tumor those muscles responded which were supplied by the motor filaments of the musculo-spiral; this last fact was elicited by my friend Prof. Darby, and the same test was applied to all the nerves exposed, reserve ligatures on the trunk above and below previous to dividing the nerve itself, and the tumor was removed from its bed. The parts exposed were submitted to close inspection. One inch and a half of the axillary artery was exposed, points of origin of subscapular and dorsalis were plainly visible, the vein was not seen, the remaining nerves of the plexus appeared perfectly healthy, there was very trifling hemorrhage and no ligatures were required. Prof. Darby was kind enough to bring the edges of the wound together with his adaptation of the horse-hair suture, which appeared to answer admirably, and the part was left without further dressing. *21st.*—Considerable tumefaction and discoloration of parts involved temperature in the fold of elbow on side of operation 100°, sound side 99°; much pain around shoulder parts below numb, both on radial and ulnar aspects of forearm. *22d.*—Tumefaction less, numbness on ulnar side of forearm less; temperature, sound elbow 98°, operated side 99°.

This morning, the 27th, the temperature was the same on both sides; there had been no return of pain, and the numbness had very materially diminished.

The tumor was about the size of a small hen's egg. From a naked-eye inspection it appeared to have grown in the connective tissue between the bundle of nerves. The individual filaments were spread out over the surface, but more on one side than the other; the cut surface was yellowish and very succulent, the watery portions escaping freely on section; and there were two or three small cavities that looked more like spaces formed by extravasation than true cysts.

Appended is a note from Prof. J. W. S. Arnold, who has been kind enough to make a microscopic examination of the tumor.

UNIVERSITY OF THE CITY OF NEW YORK,
MEDICAL DEPARTMENT.
No. 410 East 26th St.,
New York, October 27th, 1875.

MY DEAR DOCTOR:—The tumor is a myxoma, which has evidently taken the place of the nerve substance, for the tissue of the nerve can be traced to the capsule of the tumor, one portion of the nerve ending at the capsule, the other continuing its course from the capsule. The new growth has just replaced that portion of the nerve which corresponds to the diameter of the tumor. The substance which could be squeezed out from the cut surface gives the reactions of "mucin," and the round and stellate cells with gelatinous intervening substance point to the form of new formation called myxoma. The cuts are not yet dry enough to transport, but in a day or two I will send you one.

Sincerely your friend,
ARNOLD.

Dr. C. K. Briddon.

Remarks.—In the month of November, 1859, by invitation I operated at Prof. Willard Parker's clinic for the removal of a tumor of a somewhat similar character; in that case the ulnar was involved, and to about the same extent as in the present. Examined microscopically by Dr. W. H. Draper, it was found to be constituted of fibro-plastic nuclei cells and fibres, the nuclei and cells being more numerous than is usual in neuromatous tumors. The fibrous element generally predominated; there were no evidences of change in the imbedded nerve structure; it was classed amongst the fibro-sarcomas. Within a year the disease recurred in the form of a large fungating mass, that involved all the adjacent structure. Amputation at the shoulder joint was made; it recurred again in the bulbous extremities of the truncated nerve, which were exsected. It however returned again when the patient entered the New York Hospital, where the scapula and one-half the clavicle were removed by Dr. Gurdon Buck. It was all of no avail, for the disease made its last appearance in the thoracic walls, and the patient died in St. Luke's Hospital.

Dr. Briddon also exhibited calculi, removed by operation of lithotomy from a gentleman aged 69 years, who had been the subject of prostatic enlargement. The preference was given to lithotrity on account of the irritable condition of the bladder, the introduction of an instrument for lithotomy being always followed by chills. The only feature of interest was the fact, that twenty-four hours after the operation the bladder became distended half-way between the pubes and umbilicus by a solid coagulum of blood. This probably had its origin from the prostatic plexus, and there was considerable difficulty in breaking it up. Subsequent to that his recovery was all that could be expected.

Dr. B. also presented another specimen of epithelioma of the upper lip, removed by operation from a patient aged 60 years.

The Society then went into executive session.

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RUSSIAN MIDWIVES.—Amongst the women who this year follow the courses appropriated to their sex in the Medico Chirurgical Academy of St. Petersburg, the *Nowaste* speaks of two peasant women (*sisters*), who were originally midwives at Tambow. When they made up their minds to enter the Academy, they set to work with the greatest zeal to acquire knowledge of the subjects necessary for them to pass their examination. They worked for two years without any extraneous help whatever, so as to be able to pass this ordeal, and further testified to their strength of will by making the journey from Schazh to St. Petersburg on foot.

Correspondence.

TREATMENT OF HYPERPYREXIA BY COLD.

To THE EDITOR OF THE MEDICAL RECORD.

SIR:—You have recently published several articles upon the use of the bath in the treatment of hyperpyretic diseases, and naturally of the thermometer as a test of said treatment. These communications show that the profession is thoroughly aroused to the importance of the subject, and that THE NEW YORK MEDICAL RECORD is the leader of progress in that direction. This reminds me that in its first year (1867), THE MEDICAL RECORD published already a monograph, quoted by Wunderlich (in Sydenham ed., p. 42) as having spread the knowledge and love of these questions in America; and I need not say that since you have not ceased to publish valuable papers on these topics (the last ones from Dr. W. H. Thomson). It is not therefore to the paper that the following criticism is addressed, but to some of its correspondents, who exhibit their views, and their often valuable ideas, without the least regard for the history and bibliography of their subject; so much so, that writing for THE NEW YORK MEDICAL RECORD they commit—I hope unaware—the gross breach of courtesy of ignoring the publications so easily found in your excellent yearly index. This procedure of *forgetting one way what they want to teach another*, makes said correspondents lose much time, and the readers much more. If this criticism looks too broad to touch anybody, let us make it more pointed.

When the book of Wilson Fox, on the *Treatment of Hyperpyrexia*, came here in the beginning of 1872, the writer of the present paper gave, in THE NEW YORK MEDICAL RECORD, a note which contains all that has been since said—and a little more—on the substitution of bathing-dresses for bathing-tubs. This note was not sent for self-glorification, but *in memoriam* of a worthy man, and to restitute to him the honor of his invention (see in NEW YORK MEDICAL RECORD, March 15, 1872, *Treatment of Hyperpyrexia*). The same sense of justice prompts the same writer to-day to represent *de novo* the rights of Mathias Mayor to the invention of the portable bathing apparatus, which is the very thing most needed to give to thermography its most practical and mathematical instrument.

Mathias Mayor invented, about 1830, a bathing-dress composed of a thick flannel covered with oil-cloth (later india-rubber), both forming a continuous suite which completely enrobes the patient, and not less completely leaves him the freedom of his movements. This apparel was for years applied in the great hospital of Lausanne to the exclusion of bath-tubs, and was, with the wire-splints, the cotton instead of lint, Mayor's system of *deligation*, one of the features which attracted in Lausanne, Lisfranc, Sir Astley Cooper, and all the live surgeons of that period.

It is this Mathias Mayor's bathing-dress which I proposed, in THE NEW YORK MEDICAL RECORD of March 15, 1872, to revive, and to apply with some modifications to the purposes of our more recent practice of thermotherapy; insisting upon the morality of keeping this valuable invention under the name of its true inventor.

The modifications then proposed in THE MEDICAL RECORD were as follows: To establish, a little higher than the patient's bed or seat, a reservoir, with a glass rib and thermometer inserted, wherefrom the water medicated or not, warm or frigid, but at measured temperatures, would run in the bathing-dress and inundate the patient. To likewise establish below a covered recipient, where the water could run from the hands and feet of the patient through pipes commanded by faucets, so that it could be kept or allowed to stream along his body, and also to prevent any emanation of contagious effluvia.

In this dress and in this bath the patient unable to move could remain for hours, for days if need be, reading, conversing, eating, sleeping, etc., and the patient who wants exercise may go about (with an ordinary over-all) in rooms, wards, gardens, in a carriage, even on horseback—as the great Swiss surgeon was doing when called at a distance—using the opportunity of a ride in his hilly neighborhood to take his own *bain sans baignoire*.

Let this be taken from Mathias Mayor, as was his wire-apparatus for fracture, and many other of his inventions, and what becomes of the sacredness of authorship among physicians? Let us say more, if possible: What becomes of the tradition of our art, if anybody can rehearse a primary idea as their own, till it becomes as insipid as the quid of a regiment. Those who know the tradition of the treatment of hyperpyrexia, from James Currie to this day, have no excuse to offer for the substitution of their own name for historical names; and those who do not know, have abundant opportunities to learn.

E. S.

CONTAGIOUSNESS OF SCARLATINA.

To the Editor of The Medical Record.

Dear Sir:—In the fall of 1874 there occurred in this community a sporadic case of scarlatina, the origin of which I have been unable to trace, though the subject of the attack had been from home. I could not learn that he had been in any way exposed to any infectious influence. His attack was quite severe, but regular—acute nephritis following—from which he made perfect recovery. He was living at the time with a relative about one-half mile from his father's. After recovering from the attack, three months from the beginning having intervened, a new suit of clothes was brought him from home; not a single article of his apparel had he worn before; he was dressed in it, and having had a thorough washing he returned home. The first night he slept with a younger brother, who four days after was seized with scarlet fever, and subsequently four remaining children were attacked, in periods varying from four to eight days from his first return home. This ended the visitation of the disease in this part of the town, but at the same time another case appeared in another family about two miles from this case. There had been no communication between these families, they being strangers. It occurred in the person of a child of five years. He died at the fourth day. I afterwards learned that an older brother had returned home, having been living in a family sixty miles away, in which there had been three cases of scarlet fever, though he had not had the disease. This occurred in January of the present year.

The town was free from the disease until, about six weeks ago, there appeared suddenly in our midst, and within ten days of each other, thirty-five cases. It occurred to me that it could not be otherwise than interesting to trace out its origin, and follow its track, which at first seemed very mysterious, but soon shone out in light marvellously clear, though it has taken a good deal of inquiry and work to bring it into focus. A female aged 14 years, returned home from a factory, had a severe sore throat; no eruption; each member of the family had the same affection, in the same manner. No physician was called, and the nature of the affection remained unknown. A little girl of eight years, belonging to a district school, called at the home of the sick ones and remained an hour; returned to school, and continued to go to school for the next three days, when suddenly she sickened with what proved to be scarlet fever, with eruption and sore throat; some six more fell sick from the same school on the following day, and within ten days in the neighborhood fifteen lay ill.

It next jumped the space of four miles, and appeared in another family, in which were four children, all of whom became sick. These were infected by a visit from the same girl who returned home with the sore throat.

The next appearance was in our village, which was about a mile from the other cases. It was in the person of an adult female, who spent an evening in company with a sister of the first one attacked, and who had also had a simple sore throat. This patient had a diphtheritic-looking throat, a membrane, tough and of yellowish white appearance, coming off on the eighth day. The eruption was characteristic, but irregular. Death occurred on the eleventh day.

From this last one eleven became directly infected, some having it in a mild form, and one having it in the malignant form and dying on the third day.

Now the centres of contagion or infection become so numerous, the interest of tracing ceases.

From these cases we draw the following conclusions:

First, it is barely possible the disease may have arisen once independently, though this is doubtful.

Second, an unaffected person may be the carrier of the poison over a distance of many miles.

And, thirdly, the character of the disease is not determined by the peculiar feature of the disease from which one may become infected, but rather by some existing condition in the person attacked.

David Dana Spear, M.D.

Freeport, *October* 19, 1875.

A SIMPLE TREATMENT FOR CLUB-FOOT.

To the Editor of The Medical Record.

Sir:—The following case may, perhaps, be of interest to your many readers, in showing what can be done in club-foot without the use of Scarpa's or Sayre's shoes, or other costly appliances that cannot be obtained by the poorer classes.

John K., aged seventeen months, had complete talipes of both feet, the variety being equino-varus. September 5th, I operated, dividing the tendo Achillis subcutaneously, and found that the foot could be placed in its natural position. The support was given to the parts by two pieces of lint to fit the bottom and outside of the foot, and the back and outside of the leg up to the upper fourth, joining the foot-piece at an angle of about one hundred degrees. These were well padded, and the heel was brought down into the angle formed by the foot and leg-piece by a many-tail bandage brought over the instep; then the roller was applied.

The feet were dressed each day, and an emollient lotion applied, and now at five weeks after the operation, when the boy is placed upon his feet, they retain their normal position, and the progress they have made from week to week makes me confident of a permanent cure.

J. B. Todd, M.D.

Parish, N. Y., *October* 18*th*, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Nov. 7th, 1875, to Nov. 13th, 1875.

Sternberg, Geo. M., Assistant Surgeon.—Granted leave of absence, on surgeon's certificate of disability, for six months, from Nov. 1, 1875, with permission to go beyond sea. S. O. 227, A. G. O., Nov. 9, 1875.

Williams, J. W., Assistant Surgeon.—Leave of absence extended one month, with permission to apply at Headquarters of the Army for a further extension of one month. S. O. 113, Military Division of the Missouri, Nov. 5, 1875.

Koerper, E. A., Assistant Surgeon.—Ordered before the Army Medical Board, New York City, for examination for promotion, and, upon its completion, to report in person to the Commanding General, Department of the Platte, for assignment to duty. S. O. 226, A. G. O., Nov. 8, 1875.

O'Reilly, R. M., Assistant Surgeon.—Assigned to duty at Fort Ontario, N. Y., as Post Surgeon. S. O. 227, Military Division of the Atlantic, Nov. 12, 1875.

Heizmann, C. L., Assistant Surgeon.—To report to the Commanding General, Military Division of the Atlantic, for assignment to duty. S. O. 226, c. s., A. G. O.

White, R. H., Assistant Surgeon.—Relieved from duty in Military Division of the Atlantic, and to report to the Commanding General, Department of Texas, for assignment to duty. S. O. 226, c. s., A. G. O.

King, J. H. T., Assistant Surgeon.—Ordered before the Army Medical Board, New York City, for examination for promotion, and, upon its completion, to report to the Commanding General, Department of Texas, for assignment to duty. S. O. 226, c. s., A. G. O.

Hall, J. D., Assistant Surgeon.—To report to the Commanding General, Military Division of the Atlantic, for assignment to duty. S. O. 226, c. s., A. G. O.

Cowdrey, S. G., Assistant Surgeon.—To accompany 5th Regiment of Artillery to the Department of the Gulf, and, on arrival there, report by letter to the Commanding General of that Department for assignment to duty. S. O. 226, c. s., A. G. O.

Hall, W. R., Assistant Surgeon.—Relieved from duty in the Military Division of the Atlantic, and to report to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 226, c. s., A. G. O.

Torney, G. H., Assistant Surgeon.—To accompany 5th Regiment of Artillery to Department of the Gulf, and, upon arrival there, report by letter to the Commanding General of that Department for assignment to duty. S. O. 226, c. s., A. G. O.

Crampton, L. W., Assistant Surgeon.—Assigned to duty at Natchitoches, La. S. O. 198, Department of the Gulf, Nov. 4, 1875.

Rosson, R. L., Assistant Surgeon.—Relieved from duty in Military Division of the Atlantic, and to report to the Commanding Officer, Department of Arizona, for assignment to duty. S. O. 226, c. s., A. G. O.

Medical Items and News.

Dr. John Hughes Bennet.—*The British Medical Journal* of October 9, in an obituary notice of this eminent man, gives a list of one hundred and five papers, addresses, etc., written by him, together with the titles of six works of greater magnitude; and in summing up the results of his arduous life, enumerates the following as being his chief contributions to the science and practice of his profession:

1. He was the principal agent in advocating the use of cod-liver oil in this country, in the treatment of tubercular diseases.
2. He was the first systematically and practically to teach histology and the use of the microscope.
3. He was the first to introduce the systematic teaching of clinical medicine, with the aid of all the modern appliances now in use.
4. He was the first to show the great importance of the microscopical examinations of diseased organs, and more especially of the great nervous centres.
5. He pointed out the errors in the prevalent method of treating acute inflammations of internal organs, and more especially of the lungs; and was highly instrumental in leading to the almost entire abolition of bleeding in these affections.
6. He condemned the indiscriminate drugging of patients much in vogue, and especially the too free use of mercury in syphilis and in diseases of the liver.
7. He was the first to record a case of leucocythæmia, and while he did not at the time discern its true character, he contributed largely to its diagnosis and pathology, and also to the application of the discovery to an explanation of the functions of the lymphatic and blood glands.
8. He was one of the first to advocate combined labor in the prosecution of scientific inquiries, and to the principle of grants of money being given by public bodies for that purpose.
9. He contributed to physiology his well-known molecular theory of organization, which, if not adopted generally, has at all events led to a reconsideration of the question by the upholders of the cell-theory, and to considerable modifications in their views.

Eighth Annual Report of the Board of Health of the City of St. Louis.—The report shows a remarkably low death rate of 14.45 per 1,000 in a population of 450,000, and, besides the usual statistics, has interesting reports by the clerk, health officer, city chemist, and the officers in charge of the city institutions. According to the report of the health officer, St. Louis has over one hundred and sixty miles of sewers, which have cost, including private sewers, which are about fifty miles in extent, over $6,000,000. The water-works of the city supply 19,500,000 gallons per diem, a daily consumption of 3,000,000 gallons over last year. Philadelphia is the only American city of size which has a smaller average number of residents to each house. The city chemist reports upon the condition of well and cistern water, ice, filters, beer, meat, bread, cider, vinegar and pickles, milk, etc.

M. Lorain, Professor of Medical History to the Faculty of Medicine in Paris, is deceased. M. Lorain, who was only fifty years of age, died very suddenly of what is believed to have been an attack of meningeal apoplexy. He succeeded the late M. Daremberg in the professorship about two years ago.

Small *versus* Large Maternities.—After a lengthened discussion the following conclusions were arrived at by the Obstetric Section of the International Congress of Medical Science:

1. Urgency of a radical reform in the system of assistance rendered to lying-in women.
2. Complete abandonment of large maternities.
3. Replacing of large maternities by small houses with separate rooms for the object of midwifery instruction.
4. Creation of a house of reserve in the vicinity of the maternity, with separate medical attendants, etc.
5. Extension, as much as possible, of assistance of all kinds to pregnant and lying-in women at their own houses.
6. That accouchements at the residences of midwives, at the expense and under the *surveillance* of the charitable institutions, present the means of gradually suppressing maternities. This measure, desirable at all times, becomes a necessity in time of epidemic.

Institute for Rachitic Children at Milan.—Dr. Pini, of Milan, communicated to the International Congress of Medical Science that, with the assistance of the charitable public, he had founded a hospital, or rather school, where he receives, during the day only, children suffering from rickets. He gives them, besides suitable medical treatment, wholesome and strengthening food, makes them practise gymnastics, and returns them to their family in the evening. By this method he states that he has obtained the most satisfactory results.

The Arsenic Eaters of Upper and Middle Syria, according to Dr. Knapp, have discovered that arsenical food has very much to justify it, and that taken in reasonable quantities it is a very slow poison. They assign as their motives for indulging in the habit that it prevents illness, furthers their wish to look rosy and healthy, that it is a remedy against difficulty of breathing, and assists the digestion of indigestible food.

A poacher told Dr. Knapp that he acquired courage by the habit. The appearance of the arsenic-eaters in all cases known to him is healthy and robust. He thinks only robust persons can become accustomed to the practice. Some of them attain a great age. Thus in Neiring he saw a charcoal-burner, upwards of seventy, still strong and hearty, who, he was told, had taken arsenic more than forty years, and he heard, too, of a chamois hunter of eighty-one, who had long been used to eat arsenic. The dose is, of course, very small at first, and is gradually increased, the largest quantity eaten in his presence by the poacher in Neiring being fourteen grammes. A certain Matthew Schobea, in Ligist. ate seven and a half grammes before Dr. Knapp. on the 17th of April, 1865. The intervals, too, at which arsenic is taken vary—every fortnight, every week, twice or three times a week.

The Academy of Medicine of Paris has recently received two legacies which will materially aid the progress of scientific medicine in France. M. Desportes left to the Academy thirty thousand francs, the interest of which is to supply an annual prize for the best memoir on a therapeutical subject to be chosen by the Academy. M. Demarquay left to the Academy the sum of one hundred thousand francs towards the erection of a building for its use, worthy of the position the Academy has obtained. In case the cost of erection of such building is defrayed by the Government, the interest of the legacy is to be devoted to the establishment of an annual prize, the subject of which is to be decided by the Academy. M. Demarquay has also left a legacy to the "Association Générale de Médecine de France."

Eserine Discs in Tic.—Dr. Munro, in a note to *The Lancet* of Sept. 25th, describes a new and agreeable excipient for the administration of eserine (physostigmine), the active principle of Calabar bean. He finds that one twenty-fifth of a kilogramme (.0006 grain), when put up in gelatine squares or discs, answers the purpose, one-half removing the tic, if it has no persistent cause, in from five to fifteen minutes. The discs are made by Duquesnel, of Paris. Dr. M. also finds that the bean, in the form of the extract, is of advantage in incipient bronchitis, congestion of the liver, and phthisis with hot, dry skin; in sufficient doses, which for an adult are at least from one-fifth to one-sixth grain, he finds the temperature reduced from two to three degrees, the dose being repeated every four or six hours, under careful watching, until the desired effect is produced.

Compulsory Service of French Medical Cadets.—A good many French naval medical cadets (*aides médecines de la marine*) have, it seems, tendered their resignations after obtaining the degree of doctor, with a view of entering upon medical practice. This is contrary to an engagement which they sign on entering the navy, to serve for ten years after obtaining the degree of doctor.

Admiral Montaignac has issued an order announcing that in future such resignations will not be accepted. A late Board of Admiralty had prepared a similar scheme of naval medical cadetships for the English marine service, with a like view to insuring the bondage of naval medical officers during a fixed period, however unpalatable the service might be; but the interference of the medical journals and societies prevented this scheme being put into force.

Louise Lateau.—The latest intelligence concerning Louise Lateau, the so-called mystic of the Bois d'Haine, is that she no longer bleeds, and that her stigmata have disappeared since one of her sisters has taken up her abode with her and resolutely closed the door against all visitors.

The *Presse Belge* adds that Louise Lateau, who, according to the Roman Catholic journals, took no food whatsoever, now displays a remarkably good appetite.

Dr. Sibson has been requested to deliver the first of the newly instituted annual series of Harveian Lectures of the Harveian Society of London. He has selected as his subject "Bright's Disease and its Treatment, considered mainly in Relation with Arterial Tension from Blood-Contamination." The lectures will be delivered on December 2d and 16th.

Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office, 27 Great Jones Street, one week previous, to insure their appearance.*]

Wednesday, Nov. 24.—N. Y. Pathological Society, at the College of Phys. & Surg., cor. 23d st. and Fourth av.

Thursday, Nov. 25.—N. Y. Medico-Legal Society, at the College of Phys. & Surg., 23d st., cor. Fourth av.

Friday, Nov. 26.—N. Y. Medical Journal Assoc., No. 12 W. 31st st.

Original Communication.

A NEW METHOD OF CONTROLLING THE VELUM PALATI AND ENLARGING THE PHARYNGO-BUCCAL APERTURE IN RHINOSCOPIC EXPLORATION.

By PHILIP S. WALES, M.D.,

MEDICAL INSPECTOR U. S. NAVY.

The difficulties in the way of thoroughly illuminating and examining the naso-pharyngeal cavities are well known to all practical workers with the rhinoscopic mirror. The variations in the area of the space bounded in front by the velum palati, and behind by the posterior wall of the pharynx, are wide in the normal condition. In certain subjects it is so ample, that at the first "sitting," most of the parts situated above the level of the palatal process, without the aid of any mechanical contrivances, may be easily inspected with a large mirror. In by far the greater number of persons, however, this area is more restricted, even narrowed to a very small fissure; in either case the smallest mirror only being available, and some mechanical contrivance required to enlarge it. This condition offers two difficulties, that must be overcome to arrive at success; it cuts off the necessary degree of light indispensable for thoroughly viewing the parts, and precludes the use of mirrors of sufficient size to make an accurate examination of the relative condition and position of the parts. The irritability of the palate and fauces also varies in different persons, occasionally being so trifling that the velum will remain relaxed and hang down well in front of the pharyngeal wall, as it does normally in respiration through the nostrils, and in consequence good observations may be made. In some of these cases even the touching of the velum with the mirror does not excite it to contraction, which, however it ought never to be permitted to do. Most generally the irritability is such that upon the mere opening of the mouth, or a glance of the eye of the patient at the operator's hand holding the mirror as it approaches his face, will instantly cause irresistible contraction of the palatal veil upwards and backwards, against or nearly in contact with the pharynx.

The half arches vary in amplitude and shape. The space bounded by these and the base of the tongue presents occasionally almost a quadrilateral outline and are widely separated, but usually the space is irregularly triangular, the apex of the triangle corresponding with the uvula, while its base is narrow. These conditions correspond with similar ones of the base of the inferior dental arch. The age of the patient also affects the amplitude of the fauces, being proportionally smaller, the younger the patient is inside of adult age.

The base of the tongue is subject to various peculiarities of size, shape, and degree of elevation. In a few, mostly adult individuals, it is broad and flat, and when the mouth is widely opened lies well down below the plane, corresponding to the border of the molar alveoli. This position of the tongue is taken immediately the jaws are separated, or may be assumed by the voluntary efforts of the patient. In a still larger proportion of adults and in most children this part of the tongue is narrower, thick from above downwards, and when the mouth is open rises above the plane of the crowns of the molars and often completely hides the entirety of the velum from view, touching even the posterior portion of the palatal process.

Many persons, especially those of nervous temperament, have such imperfect volitional control over the movements of the tongue, that even when all the physical conditions of conformation are favorable, and but little irritability exists, the rhinoscopic examination is very difficult. The tongue persistently rises to the roof of the mouth and offers considerable resistance to the spatula, the use of which not unfrequently produces under these circumstances repeated retching.

The first attempts to inspect the naso-pharyngeal region were made by Czermak during the winter of 1857–8, and the method then adopted he called rhinoscopy. It was first tried upon himself with the aid of his auto-laryngoscopic apparatus, and by *frequent practice he saw very distinctly a portion of the nasal fossæ, the septum, the turbinate bones, the posterior surface of the velum, and the orifices of the Eustachian tubes.* In examining other persons, he made them depress their tongues themselves by means of a tongue depressor; the velum then became readily accessible, and when wanted, he elevated and drew it forward with a hook, so as to facilitate the introduction of the mirror. Manipulation in this manner required both hands,—one in holding the hook, and the other the mirror. It order not to occupy the two hands simultaneously, he had made at the commencement of his rhinoscopic studies, a small instrument, which might serve at the same time the purposes of a hook and a mirror, and which would necessitate the employment of one hand only. He describes it as constructed out of a metallic tube, bent at a right angle, and therefore composed of two arms, of which one is long, whilst the other—the vertical—is short; an oval steel mirror is attached at an angle of forty-five degrees, at the bent part, between the two arms. The light enters through the long arm; the short arm is obliquely cut at its extremity, to be introduced behind the velum into the pharyngo-nasal cavity. He was soon convinced of the necessity, he tells us, of substituting for the major part of the long arm a half tube, in order to have more light, and a more close inspection of the small oval mirror. It seemed to him equally advantageous to replace the short arm by a vertical plate of metal, which could be secured and removed by means of a ring; the introduction of the instrument was thus facilitated. He goes on to state that this simple, and it may be said primitive instrument, he frequently employed with success upon himself firstly, and afterwards upon patients. The position and inclination of the apparatus are the determining cause, by means of which some parts of the pharyngo-nasal cavity and of the nasal fossæ, rather than others, are found illuminated and reflected by the mirror. In July, 1859, he made some rhinoscopic experiments upon a dead body, for the purpose of more readily exposing those regions, till then inaccessible to view, and for the better appreciation of the bearing of his new method of exploration. These experiments again convinced him, that in this way we can expose to view the posterior wall of the velum, the walls of the pharyngo-nasal cavity up to the sphenoid bone, the orifices of the Eustachian tubes, and the extent of the posterior orifices of the nasal cavity, as well as the turbinated bones. *He did not perceive the floor of the nasal cavity, nor of the inferior meatus; but he suggested that it might be done by using double mirrors, of which the superior might reflect its object into the inferior.* The utility of this suggestion has not been made apparent. In comparing the relative difficulties of rhinoscopic and laryngoscopic inspection, he declares that those of the former are much graver than those of the latter, unless favored, for example, by insensibility, by fissure or partial deficiency of the velum. Czermak's rhinoscopic instrument described above, does not seem to have been a success, and was laid aside; for in March, 1860, he examined a case in which there was some pharyngeal disease. The anatomical conditions, he states, were favorable, and an inspection was first made without any instrument to control palatal movements, but in order to examine the affected parts with greater liberty, and on a more extensive scale, he requested the patient himself to depress the base of his tongue with a rectangular spatula; and then, he says, with his left hand he elevated the velum palati in front and above, by means of a flat hook with a long stem, assuming the form of a spatula, of which the flat part contained an opening. In his article two spatulas are figured, one with and one without a fenestrum. The application of this hook, he remarks, did not cause the slightest inconvenience in the present instance; and after regulating the inclination and position of the mirror, which had been introduced into the pharynx with his right hand, he was enabled to complete, by degrees, a satisfactory and clear examination of the part affected, which permitted him to make a drawing that figures in his paper, showing the extent and character of the disease. With the aid of the spatula he did not see the whole of the posterior nares; for he distinctly states that on the right side, which was normal, "we can perceive through the posterior orifice of the nasal fossa of the same side a *portion of the upper part of the turbinate bones, and a portion of the meatus of the right side, whilst the inferior parts are hidden by the velum palati.*"

That Czermak was fully impressed with the difficulties encountered in this and many other cases in thoroughly and completely exploring the nares and pharynx, in consequence of the movements of the velum, and that he entertained strong hopes that instruments would be devised, or aid of some kind afforded finally by zealous laborers in this field, is manifest in a concluding paragraph of his paper, where he states that "it is only in the future, when the impulse which I have given to the subject shall have been followed for some time, that we can attempt to judge to what point the local depression of sensibility by means of cold water, of anæsthetics, narcotics, or the patients getting used to it, on the one hand, and the gradual increase in the powers of dexterity of the physician on the other, may facilitate the use of the rhinoscopic method, if not favored by circumstances."

This is the point at which, in 1860, Czermak left the subject. He had not devised a practical means to overcome the muscular action of the velum palati, and therefore had not seen, except in glimpses, the entire walls of the naso-pharyngeal cavities as far as anatomy of the parts permit.

Moura wrote four years later, that "all authors have recognized the necessity of enlarging the inferior orifice of the pharyngo-nasal cavity, although we may sometimes make a rhinoscopic examination without interference from this part." That this necessity was still deeply felt, is shown by the multiplicity of suggestions and the array of mechanical devices for controlling the palatal movements, described by the writers alluded to. To render the palate flaccid, it was proposed to submit it to repeated touching and rubbing to diminish its sensibility, to spray it with bromide of potassium (Auzias—Turenne), to weary the patient out and to distract his attention. Voltolini hoped by forcibly depressing the base of the tongue, Semeleder by directing the patient to breathe through the nose, and Czermak to cause him to emit nasal sounds, to relax the palatal muscles, so as to give sufficient space for the use of the mirror. All these various plans may occasionally succeed, but for the art of rhinoscopy to make any considerable progress, more efficient means are required. That they were practically of little account, may be easily conceived when it is known that the most successful operators were constantly devising mechanical contrivances.

Türck constructed an instrument like a polypus forceps, for seizing the uvula and drawing forward the palate—one similar to the urethral forceps for clamping the uvula, a small tube with wire sling to catch the uvula, and lastly an instrument like a lithotrite fixed by a screw. Moura suggested his *tenseur du voile du palais*, which was simply two hooks sliding one upon the other, and mounted upon a handle, and designed to seize the palate. All these various contrivances are useless, for experience has shown that we cannot by force pull forward the elevated palate. The same amount of irritation and energetic contractions as that excited by *seizing* the palate in order to pull it forward, is not noticed when palate hooks are employed. This sort of instrument was adopted by Czermak, and Türck also suggested a hook with a horizontal groove to prevent the velum slipping off. These instruments are much too heavy and irritating, and cannot, as a general rule, be borne by the patient, and the soft structures have not unfrequently been damaged by their use. To overcome these objections, I constructed some years ago a hook of flexible wire, which is light, easily managed, and can do no harm, and is capable of doing all that such an instrument can accomplish.

A third method may be attributed, I believe, to Türck, who used an instrument consisting of curved points which are introduced behind the velum and then opened; one blade rests on the posterior wall of the pharynx, while the other presses the velum forwards. Störk combined the hooks and mirror, and is described by Semeleder in the following manner:

Suppose a mirror and a hook, both having rings on their extremities, their handles, at the middle joint stems, are united like a pair of scissors, so that pressing together the separate rings, the hook lying upon the mirror is raised; the mirror together with its stem has a longitudinal sliding movement; whilst upon the anterior portion of the mirror stem a small leaf may be placed as a substitute for the tongue-spatula. The mirror and the hooks are pressed against each other by a spring. The instrument thus closed is introduced behind the velum, and then, by an approximation of the rings, opened, and the hook, upon which the velum now rests, is drawn towards the observer.

Voltolini's rhinoscope is a long, black spatula, on the end of which, at a prescribed angle, a steel mirror with a short neck is placed.

The above account of the instrumental and other means to control the movements of the palate is a fair summing up of what has been done in this direction, and as may have been gathered from its perusal, they are all more or less imperfect, difficult of management, and not of general application. In my opinion, the method which I shall now describe overcomes all the difficulties as far as the anatomical structure of the parts will permit, leaves nothing to be desired, and fully realizes Czermak's sanguine anticipations.

My principle consists essentially in overcoming the contraction of the palatal muscles by elastic force, and the means of fully carrying it out will be found in an india-rubber cord. The simplest method of putting it in position after having selected one of such a diameter—two millimetres will do—as will readily pass through the inferior meatus into the pharynx without any instrumental assistance, is the following:

One end is introduced into each nostril, until they both reach the lower portions of the pharynx. At this moment the patient is directed to cough, if the presence of the thread has not already excited this movement; the force of expiration will pretty surely project them into the mouth, when they may be apprehended with the fingers and drawn externally until the middle portion of the cord, which is external, is arrested against the nasal septum. Gentle traction is continued until the soft palate is well drawn forward, when the threads are passed up over the ears, and downwards beneath the chin and there tied, or they may be held by the patient himself. At any moment after the ends of the elastic are secured at the point indicated, the tension of the cord and correlative palatal pressure may be increased by seizing the threads as they pass out of the mouth and gently drawing them forward, until the palatal contraction is entirely overcome, and the area of the pharyngo-buccal space ample enough to receive the largest mirror. It will sometimes be observed that where there is very much irritability, the velum palati momentarily contracts, especially at the time when the mirror is introduced, but soon yields to the elastic force of the thread. Should any impediment whatever exist in the nostrils, that the cord cannot be passed by itself, the little instrument I have described below works admirably as a cord carrier. Of course, an expert hand may make use of any instrument that may chance around a catheter, slips of whalebone, or wood. I have found the contrivance that passes under the name of Belloc's sound, put in some pocket-cases, is not in a majority of instances appropriate to effect this object: it is too large, and too much curved to pass through the nostrils without being propelled by an improper degree of force that causes both pain and bleeding. An example of these objections to that instrument as ordinarily furnished may be related. At a demonstration in my office, when six medical gentlemen were present, Belloc's sound was tried upon the nostrils of all present; it could not be passed except in a single case, and then but upon one side. The experiment, indeed, might have succeeded in all, but the instrument was not pressed when any considerable amount of pain was produced.

The device mentioned above is simple, cheap, and easily managed. It is a thin lamina of soft metal, six inches long and less than an eighth wide, mounted at each extremity with a small ring of an amplitude a little greater than the elastic cord, which having been passed through them, is tipped with small, smooth, oblong fragments of lead. When the instrument is to be used, the cord is drawn through the rings until one of its tips comes against the corresponding ring; slight tension of the elastic will retain the two in contact while the point thus formed is being conducted along the inferior meatus. When the metallic point reaches the posterior wall of the pharynx, the elastic projecting externally is pulled through the exterior ring, and made quite slack so that the instrument may be withdrawn from the nares, leaving the cord in position; a similar proceeding is then practised upon the other nostril.

The metallic points of the cord, now in the pharynx, may be easily thrown forward by coughing or hawking, and seized with the fingers and drawn externally. The metallic lamina, on account of its flexibility, will thus be bent as a bow over the bridge of the nose, and out of the way. This is a neat, facile, and quick method of placing the elastic cord in the nostrils. I have also used in cases where there was obstruction to the passage of the cord, a catheter similar to the one designed for the Eustachian tube, except that both ends are alike; the catheter is introduced into one of the nostrils, and when its point is eligibly lodged posteriorly, the cord may be thrust through it until it reaches the throat and is expelled by the mouth by expiratory efforts, when the catheter may be withdrawn and the same manœuvre executed upon the other side. The cord tipped with a metallic point may also be carried into the pharynx by means of a little probe similar to the *porte-mèche*, the point of which is received into a depression on the tip. In the course of my experiments as to the best method of controlling the palatal contraction, I have used several other devices for conducting the elastic into position, but the methods described recommend themselves by their simplicity and general application. The cord should pass along the inferior meatus, which experience shows is oftenest free from those morbid changes which block up the area of the nostrils. The mucous membrane of the nose and throat is by far more tolerant of the contact of elastic substance than of metallic objects, and it is surprising how little indeed in many cases is the irritation caused when the soft palate is doubled upon itself and stretched forward by the cord. I have repeatedly kept it in this position for thirty and fifty minutes. The area gained varies, of course, with the normal size and configuration of the patient's fauces. I have within a few hours of the present writing expanded the area in one case—by no means favorable, for the throat is exceedingly irritable and narrow, and there is chronic pharyngitis—by gentle traction on the cord until the antero-posterior diameter measures one inch and a quarter, and the transverse one inch. With a seven-eighths mirror, the larger portion of his posterior nares can be seen at one view.

The discovery of means of amplification of the pharyngo-buccal aperture has occupied my attention for several years. I have had only moderate success until the discovery of the devices I now bring to the notice of the profession.

Its chief merits are the simplicity of the apparatus, and the facility with which any professional person may employ it in exploring the posterior nares and the pharyngeal cavity. The cord itself may well take the place of Belloc's sound in any case wherein it may be necessary to conduct a thread through the nostrils, as in plugging the nares for epistaxis. Here, however, I employ a little bulb of rubber at the end of a hollow rubber cord, and after the bulb is placed in position through the fauces, it may be inflated by blowing air through its open extremity which projects exteriorly from the nose.

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Dumb Rabies.—Professor A. Liautard sends us, under date of November 11th, a memorandum of a case of so-called dumb rabies in a Danish slut, which was brought to the hospital of the American Veterinary College, and placed there under observation. She showed all the symptoms characteristic of the disease, viz., paralysis of the lower jaw, peculiar appearance and coloration of the tongue, characteristic barking, spasmodic contractions of the muscles of the body followed by loss of power in the hind extremities. Her temperature in the rectum ranged between 102.5° and 102.8°. At the request of the owner she was killed twenty-four hours after admission.

Original Lecture.

UROCYSTIC AND URETHRAL DISEASES OF WOMEN.

By ALEX. J. C. SKENE, M.D.,

PROFESSOR OF GYNÆCOLOGY IN THE LONG ISLAND COLLEGE HOSPITAL, BROOKLYN, N. Y.

Lecture I.

GENTLEMEN: You might naturally suppose, after what you have learned from the chair of General Surgery regarding diseases of the urinary organs, that anything more on the subject would be unnecessary. You remember, however, that what you have heard had special reference to the male, and it remains for me to tell you about the same and allied diseases in the female.

The anatomy and physiology of the bladder are the same in both sexes, but the relations of this organ differ in male and female; and circumstances affect them so as to make quite a difference in their pathology. This warrants my discussing this subject, and is the reason why I seemingly trespass on the surgical domain.

In works on anatomy the male bladder is taken as the standard, and accurately described, while little is said about the female bladder, except a passing notice of some points where it differs from that of the male. This organ is simply a sac or bag, the walls of which are composed of four coats—serous, muscular, areolar, and mucous. In this respect it resembles the alimentary and the urogenital canals. The external coat is the common covering of all the abdominal viscera-peritoneum. The muscular coat has two layers, a circular, and a longitudinal, so arranged as to insure uniform concentric contraction. Beneath the muscular coat is a layer of areolar tissue, which contains the principal blood-vessels and nerves, and is the bond of union between the muscular structure and mucous lining. The mucous membrane of the bladder is peculiarly wanting in glandular structures, other than simple mucous follicles and small racemose glands near its neck. The union of the mucous and muscular coats by the areolar tissue is somewhat loose, except at the triangular space at the base of the bladder, where they are more firmly connected. This triangle, known as the trigonum vesicæ, is bounded on each side by slightly elevated ridges, which terminate posteriorly at the points where the ureters enter the bladder. At the apex of the triangle, in front, there is another slight ridge just at the point of entrance of the urethra. The mucous membrane in the trigone is smooth, and thinner than the rest of the internal coat.

The bladder is triangular when empty, and ovoid when full. Its vertical diameter is longest in the child, but in the adult female it is longest from side to side. It is situated behind the pubes and in front of the uterus and vagina. It is separated from the uterus by the peritoneum, down to near the junction of the body and cervix uteri. From that part downward for about half an inch the bladder and uterus are held in contact by areolar tissue. The remaining portion of the posterior wall of the bladder rests upon the anterior vaginal wall, the two being very loosely united, except at the neck of the bladder, where the union is much more complete. This union with the uterus and vagina posteriorly, and the pubes in front, holds the lower portion of the bladder in position. The upper and greater portion of this organ is held in place by a number of ligaments, five true and five false. The true ligaments comprise two anterior, two lateral, and the cord of the urachus, while the false ligaments, formed from folds of peritoneum, are two posterior, two lateral, and one superior.

The urethra is about an inch and a half in length, beginning at the neck of the bladder, and extending to the meatus urinarius. It is located in the upper portion of the pubic arch, and is imbedded in the anterior vaginal wall, its direction being downwards and forwards in a slight curve. It perforates the triangular ligament or deep perineal fascia, two layers of which extend around it, one forward, and the other backward. The diameter of the urethra is about a quarter of an inch; but, owing to the unresisting nature of the tissues surrounding it, can be dilated to a great extent. It is lined by mucous membrane, which is disposed in longitudinal folds, and is continuous internally with that of the bladder, and externally with that of the vulva; the mucous membrane is surrounded by a proper coat of elastic tissue, to which the muscular fibres of the detrusor urinæ are attached. The meatus is encircled by a ring of fibrous tissue, which prevents it from distending with the same facility as the rest of the canal.

The function of the bladder is to act as a reservoir for the urine as it is secreted by the kidneys. As the urine flows very slowly but constantly from the ureters, the bladder distends to receive it. The bladder fills first in the posterior and lateral directions, until it meets resistance, when it extends upwards into the abdominal cavity. When the organ is filled to its capacity, or when the character of the urine is unnatural and irritating, then the desire to urinate comes on, and the contents are expelled. In other words, urination occurs. But the bladder is no sooner emptied than it begins to refill, and thus goes on unceasingly. The filling of the bladder is one of the involuntary actions which the subject is not conscious of. Urination is governed by reflex nerve action, and is partly voluntary and partly involuntary. When the conditions which call for evacuation are present, there is an impression made on the sensory nerves of the bladder, which intimation is conveyed to the brain, and then the muscles which effect urination are called into action, and the bladder is emptied by volition.

The number of times which the bladder is emptied, and the quantity of urine passed in twenty-four hours, vary considerably. The relative amount of elimination performed by the skin, the quantity and character of fluids taken, the amount of labor performed, all modify the quantity of urine secreted, and the quality of the urine and the irritability of the bladder influence the frequency of urination. But there are limits to these variations. If a person micturates more than nine times or less than twice in twenty-four hours, or passes more than forty-five or less than twenty ounces in the same period, that would be beyond the limits of health. In a healthy condition the desire to urinate is rarely so urgent but it can be resisted for a time without great distress, and during an ordinary period of sleep the urine can be retained without inconvenience.

With these few statements to recall to your minds some of the important points in the anatomy and physiology of the bladder, we now come to the discussion of some of the more important functional and organic diseases of this organ.

Cystitis is one of the most distressing diseases which any one can have, and it is by no means of rare occurrence. Women suffer more frequently than men, I believe. Unfortunately it is a complaint difficult to manage by any known form of treatment. We are not able at all times to cure cystitis, and, what is worse, we sometimes fail to completely relieve the pain and suffering caused by this affection.

Acute cystitis occurs occasionally, but is rare compared with the subacute form, and unless recovery is prompt the disease tends to assume the chronic condition.

The morbid anatomy of acute cystitis is the same as in acute inflammation of mucous membrane in other parts of the body. The membrane is swollen and relaxed, florid with congestion, and usually covered with mucus. There is exfoliation of the epithelium, as shown by the partially denuded condition of the membrane, and the presence of pus and old cells in the mucus passed with the urine.

Chronic cystitis is generally catarrhal, and in the earlier stages of the disease the mucous membrane is swollen and thickened. In place of the redness of acute inflammation, the membrane becomes of a muddy gray color, and is covered with a dark or yellow muco-purulent secretion. As the disease advances there is excessive cell-growth on the free mucous surfaces; patches of ulceration appear here and there, attended with the formation of pus, and these spots bleed occasionally. The ulceration is very extensive in some cases, and then the membrane is quite red, and looks like a granulating sore. The more advanced tissue-changes which occur in the male bladder, such as eccentric and concentric hypertrophy in a marked degree, and submucous abscesses, do not occur as often in the female. The decomposed urine mixed with pus, mucus, blood, and shreds of membrane, which form the chocolate-colored fluid found in the advanced stages of the disease in the male, are rather rare in women. In cases of long standing the vesical ends of the ureters are obstructed by swelling and hypertrophy of the walls of the bladder. This produces obstruction to the free flow of the urine, and leads to dilatation of the ureter and pelvis of the kidney, and in some cases organic renal disease follows in the train of pathological sequences.

In some text-books you will find three forms of cystitis described: cystitis mucosa—catarrh of the bladder; interstitial cystitis; and pericystitis, or epicystitis. As a rule, the last two forms are consequences of the first, and I prefer to class all the pathological conditions under the one head—cystitis. What is said in this connection will have reference to the catarrhal form, including ulceration.

The symptoms of cystitis are chiefly manifested by deranged function of the organ. The disease does not, at the beginning, affect the general system so as to produce marked disturbance. There may be some slight febrile symptoms in the acute form, but in the subacute, and by far the most frequent form, the general health is not affected, except by debility caused by the pain and want of sleep. When the disease advances to destructive organic change in the bladder,—in short, when vesical phthisis occurs—we get all the constitutional symptoms of phthisis. In cases of long standing, which are complicated with inflammation of the pelvic organs, or organic renal disease, the constitutional symptoms are such as occur in these respective troubles.

The chief and only positive symptoms are the derangement of the function of the bladder, changes in the character of the urine, frequent and often painful urination, and vesical tenesmus. These symptoms vary in severity according to the extent of the cystitis. In the mildest form of the trouble there is a frequent desire to pass water, which often comes with unusual force. Micturition is followed by a desire to strain, as if the bladder had not been emptied. This feeling subsides partially, or wholly, after a time, and returns again after each act of urination. As the disease advances, and in the more marked degrees of the trouble, all these symptoms are more severe. The least drop of urine in the bladder tortures the patient until it is passed, some being obliged to urinate every ten, fifteen, or twenty minutes, night and day. In fact, the desire to urinate is constant, and when the bladder is emptied the painful tenesmus is very severe. Sometimes, when the bladder contracts completely together, it causes very sharp, stinging pain.

The changes in the urine are valuable aids to diagnosis. In the majority of cases the urine is strongly alkaline, but in some it is constantly acid. At the beginning of the disease the urine contains a small quantity of mucus, which soon increases, rendering the urine turbid and darker in color. The deposit, at first transparent, becomes thick, opaque, and of a gray or yellowish color. In addition to the free admixture of mucus, exfoliated broken-down epithelium and pus are found in less or greater quantity, and finally, blood is present from time to time. When there is a large quantity of pus, and the urine is strongly ammoniacal, the deposit becomes converted into a thick, tenacious, jelly-like mass, as coherent as half-liquid glue. This effect is said by some to arise from the action of alkaline urine on the pus and mucus, by a process of fermentation. Others claim that the fermentation is not caused by the urine, but is due to the presence of low organisms, such as vibriones and fungi. Be this as it may, this peculiar ropy mass in the urine occurs only in advanced chronic cystitis.

The diagnosis of cystitis is generally easy in marked cases, but in mild attacks care is necessary to distinguish it from other conditions which cause similar symptoms. Frequent urination occurs in many other troubles, such as prolapsus uteri, adhesions from pelvic peritonitis, abdominal tumors, and in the various neuroses. Pregnancy almost invariably gives rise to annoying frequency of micturition.

Frequent urination from prolapsus is worst when the patient is standing or walking, and is relieved, either wholly or to a great extent, by the recumbent position, while in cystitis position makes no marked difference.* In adhesions from pelvic peritonitis, abdominal tumors, and pregnancy, the desire to urinate only comes on when the bladder is partly full, and is about the same night and day. Frequency of urination is not usually accompanied with tenesmus, except when due to cystitis. In the various forms of neuroses of the bladder the frequent urination is very irregular, the patient at times being almost entirely free from it, and at other times troubled very much.

The frequent and painful urination of cystitis may be simulated by urethritis, and other painful, irritable conditions of the urethra. The distinction can be made usually, from the fact that in urethral disease there is no vesical tenesmus, or if any, it is much less than in cystitis. There is acute pain in the act of urination, and a burning sensation in the urethra, which sometimes causes sympathetic vesical tenesmus; but when that passes off the bladder will tolerate distention to the fullest extent.

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* I have seen one very interesting exception to this general rule. The lady had a complete prolapsus for many years, and when in the erect position she could retain her water for an ordinary length of time, but when she lay down in bed the most urgent desire to urinate came on, and she could only retain a very small quantity of urine. The cause of this I found to be inflammation of the neck of the bladder. When in the upright position the urine settled down in the dependent portion, but while recumbent the pressure came on the tender part.

The causes of cystitis are numerous, much more so than in the male subject. Direct injuries frequently give rise to inflammation of the bladder, and stand first in the list of causes. In ordinary labor, especially in those who have borne many children, the bladder is pushed down between the head of the child and the symphysis pubis, and is less or more bruised, which occasionally causes cystitis. In tedious and difficult labors, and in instrumental deliveries, the dangers are greater still to the bladder. Among other causes are the careless or rude use of the catheter; the retention of the urine for an extraordinary length of time, either from carelessness or want of convenience—a misfortune to which ladies are very liable.* The decomposition of urine, is caused by imperfect evacuation of the bladder in cases of extreme prolapsus vesicæ, and irritation from abnormal conditions of the urine. It may also arise by the extension of inflammation from neighboring organs, such as vaginitis, metritis, pelvic peritonitis or cellulitis, and occasionally from gonorrhœal poison being conveyed into the bladder.

Certain diseases of the general system affect the bladder, such as the eruptive fevers. In scarlatina especially, I have noticed that the mucous membrane of the bladder suffers to some extent like the mucous and tegumentary tissues elsewhere. Sudden chilling of the feet, limbs, and lower portion of the trunk has sometimes the effect of causing vesical catarrh.

TREATMENT OF CYSTITIS.

Cystitis requires both constitutional and local treatment, and with all it is, or has been, an exceedingly troublesome disease to manage. The constitutional treatment is such as will render the urine most agreeable to the bladder, and relieve, as far as possible, the suffering of the patient. The cause, whatever that may be, should be removed if possible; and the remedies used must be adapted to the stage and condition of the inflammation. In acute cystitis caused by exposure to cold, diaphoretics should be freely used, and the patient made to rest as quietly as possible. Diuretics should be given if the urine is loaded with solid material, and the alkaline salts should be preferred. Vichy water, nitrate of potash or flax-seed tea with chlorate of potash or nitre, will answer very well at the beginning of the disease. You must be careful, however, not to push your diuretics too far. Sufficient to bring the urine to its normal proportions, and make it alkaline if naturally acid, is all that is required.

Bear in mind always that limpid urine is the most irritating to the bladder. You all know how impatient the bladder is, and how urgent the desire to urinate, when it is rapidly filled with limpid urine. One gets the best illustration of this effect when chilled by being caught in the rain in a summer day. The desire to micturate is very urgent under these circumstances, when the urine is as clear as water.

One or two leeches to the anterior vaginal wall may be tried, and hot applications to the epigastrium. To relieve pain opium is indicated. Dover's powder is very valuable, and may be given with ordinary doses of camphor. If there is any objection to anodynes given in this way, or if there is sympathetic rectal tenesmus, suppositories of morphia and belladonna should be used.

In the more advanced stages of the disease, remedies are used for their direct effect upon the mucous membrane, and much good is obtained in this way. The drugs which have the best reputation in urethritis are employed in cystitis. Balsam of Peru and of copaiba, oil of turpentine and tar water, are the chief of this class, and should be given in capsules, in the same way as for gonorrhœa.

When the pain is not severe, and the urine is loaded with mucus and pus, astringents should be given. Tannin, continued for a considerable time, is of very great value. Decoction of uva ursi, in half-ounce doses, may also be used for this purpose. In place of these I have used, with occasional good effect, a mixture composed of two ounces fluid extract of buchu, one ounce tincture of conium, and one grain and a half sulphate of morphia, giving teaspoonful doses every three or four hours.

All these remedies may be tried in cases seen early, but when they fail, or when the acute stage of the trouble is long past before advice is sought, then local treatment must be employed. The bladder should be washed out, and injections used. This you will all feel competent to do, no doubt; but I must give you some general directions as to the methods of manipulating, as I feel assured that much of the good effect of this kind of treatment is lost by the ignorant and careless use of the catheter and syringe.

I would advise you not to use the ordinary metallic catheter with one or two large openings at the end. The objection to that instrument is, that when the bladder is empty the mucous membrane passes into the opening, and is likely to be injured when the catheter is withdrawn. When the edges of the openings are sharp, as they often are, the membrane is almost certain to be wounded. I have repeatedly seen hemorrhage follow the use of such instruments. The same objection may be raised against the gum-elastic catheter, as usually made. I much prefer a metallic or hard rubber catheter, having a number of small holes in about half an inch or more of its extremity. It should also have a stopcock at the other end, which you will find convenient when emptying the bladder, and also in using injections. Besides enabling you to keep the injection in the bladder for any time desired, the stopcock enables you to regulate the escape of the last of the urine or injection. While injecting the diseased bladder, its contents are usually expelled with force, and the bladder flaps down on the end of the catheter with force enough to injure itself and cause pain. This is easily avoided by closing the stopcock, and allowing the last of the fluid to escape slowly. The hard rubber catheter is more suitable than the metallic one, where caustic injections are to be used, as it is not affected by them to any great extent.

In employing a catheter, it is usual to lubricate it with oil, but you will find castile soap and water more cleanly and convenient. The oil is apt to be rancid, and unless you have very hot water at hand the catheter cannot be easily cleaned of the oil; both which objections are avoided by using soap. In order to employ injections successfully, you must have, in addition to the catheter described, a syringe to fit into it easily and accurately. Manning's ear syringe, which answers very well, is simply a rubber bulb attached to a tube or nozzle. By compressing the bulb and dipping the tube into the fluid, and then allowing the bulb to expand, the fluid is drawn up into it. You then insert the tube into the catheter, and on again pressing the bulb the fluid is thrown into the bladder.

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* The extent to which the bladder may be distended without rupturing is quite wonderful. My friend Dr. Bodkin recently invited me to see a lady with him in consultation, who went without urinating for four days and nights, after her confinement. The bladder reached above the umbilicus, and contained about three times the full of an ordinary pot de chambre of decomposed urine, which was drawn off by the catheter. The bladder remained paralyzed for three months afterwards, but finally regained its expelling power. At the time I saw her, she was suffering from cystitis, brought on by the mal-treatment. In justice to the medical profession, I ought to say that this lady was attended in her confinement, and for a long time after, by a member of the so-called "new school" of medicine.

This operation, simple as it may appear to you, requires considerable skill and care in order to do it well. Much good may be gained by the proper use of this means of treatment, but great pain and distress, and even real injury, will follow if it be ignorantly employed. Observe, then, carefully these rules:—(1.) To inject only one ounce of fluid at a time; the injection may be repeated three or four times in succession, until four ounces in all are used. (2.) Inject as slowly as possible, and let the flow be regular, avoiding all sudden jerking. If you use the cylinder and piston syringe, get one that works very easily, in order that you may avoid the objection mentioned. The reason for the necessity of slow and regular injection is, that the bladder is unaccustomed to sudden distention, and any rapid expansion causes great distress, and really injures the organ.

Simply washing out the bladder is often beneficial, and it ought to be frequently repeated. It should always be done before using any medicated injection. Warm water is usually employed, but the addition of chlorate of potash or common salt makes it less irritating to the bladder. I prefer the common table salt, using about sixty grains to the pint of water. It is generally conceded that salt and water is more acceptable to serous and mucous membranes than any other fluid, because more like the normal secretion of these parts.

Having prepared the bladder for local applications or injections by carefully washing it out, the material to be used may be selected from a long list of remedies. I shall only mention a few of those which I believe to be most valuable. I need hardly tell you that anodynes have been tried most faithfully. The painful character of the disease suggests their use, but you may be surprised to learn that they are not reliable or very effectual. The mucous membrane of the bladder was not intended to absorb, and therefore we get very little of the anodyne effects of opium or any of its preparations, when injected into it, even when the dose is very large. Should there be ulceration, then the local and constitutional effects of morphia may be produced by absorption. Braxton Hicks uses one or two grains morphia to the ounce of water as an injection, allowing the patient to retain it as long as possible, and he claims good results from its use. Remedies which produce local anæsthesia, or quiet local irritation, do relieve the pain to some extent, but not altogether by any anodyne action, such as we get from opium given by the mouth or rectum.

The astringent and alterative injections most beneficial and most commonly used are nitrate of silver, sulphate of zinc, tannic acid, and acetate of lead. My rule is, to use one or two grains of either to the ounce of warm water, and to increase the quantity if no good effect comes from the small doses, but carefully avoiding injections strong enough to cause much pain. I have used, in cases where everything else failed, four grains of carbolic acid to the ounce of water, which has relieved the distress for a time, but I am not prepared to say that any permanent benefit followed. Chlorate of potash is valuable, and perchloride of iron is said to be useful. Infusion of hydrastis canadensis has been used, and great virtue is claimed for it. I have tried it, and believe that it is good in some cases, but still it fails, like the rest, in others. When the urine is alkaline and offensive from long retention, which is occasionally the case in prolapsus of the bladder, then nitro-hydrochloric acid should be used, of the strength of two minims to the ounce of water. Whenever pain is caused by any of these astringent injections, morphia should be used after.

In obstinate cases a strong solution of nitrate of silver is one of the most reliable remedies. Twenty grains to the ounce of water has been used with great benefit, and it does not cause as much pain as you might suppose. Very small quantities only can be used at a time, not more than five or ten drops. The only trouble which I experienced was to be sure of getting that small quantity in, and no more. I have finally succeeded, by adopting the following plan, which I recommend to you. Take a number 1 or 2 elastic catheter, and attach it to a small graduated syringe, say a hypodermic or hard-rubber syringe, charge this with your solution of nitrate of silver. Introduce the ordinary catheter and draw off the urine, then wash out the bladder with water. Then carry the small elastic catheter through the catheter already in the bladder, and inject the five or ten drops. Remove the catheter attached to the syringe and inject a little water through the larger catheter. This will force in the last drop of the solution, and at the same time dilute it and prevent any deep or severe caustic action.

Normal urine has been highly recommended as an injection in cystitis. The urine from a healthy person is obtained and used in the same way as the other injections described. I have always looked upon this treatment with a little suspicion. It may be of value in cases where, from some derangement of the general system, the urine secreted is abnormal, and therefore irritating to the bladder, and where constitutional treatment cannot remove that condition of things. When the urine secreted can be kept in a normal state, it must, it seems to me, be as acceptable to the bladder as the same kind of urine from another person. Theoretically you would expect that healthy urine poured into the bladder from the kidneys would be more likely to cure cystitis than if it were injected through the urethra. However, this method may be of value; but one thing is certain, it fails like all other injections in certain cases.

One great obstacle often met in using injections is a tender or inflamed urethra. I will reserve what I have to say on this subject until I take up the diseases of the urethra, but meantime give the following excellent suggestion of Braxton Hicks in treating such a complication. When the introduction of the catheter is very painful, he advises carrying it up to the sphincter, and then by gentle yet firm pressure to force the injection into the bladder. This is a valuable practical point well worth remembering.

A valuable addition to these direct methods of treating the bladder is employed by my friend Dr. Robert Newman, of New York, who has made some useful contributions to the therapeutics of vesical disease. He employs the endoscope to make the diagnosis, and makes direct applications to the diseased parts through that instrument. In ulceration, he has been very successful in his practice. He applies a solution of nitrate of silver—twenty grains to one drachm water—to the ulcerated surface, and by carefully regulating the amount used, finds that the pain is less than when a weaker solution is used in the ordinary way. For a full account of this matter, I refer you to the *Transactions of the Medical Society of the State of New York for* 1870.

With all the means of treatment yet described you will be unable to cure some of your worst cases of chronic cystitis. Indeed, you will fail sometimes even to relieve their suffering. Such unfortunate subjects have usually been set aside as incurable, and even now we have cases which surpass our skill. But a great advance has been made in the treatment of those obstinate cases, by using measures to fulfil the chief indication in the therapeutics of inflammation—rest. The great trouble has been to secure sufficient rest to the bladder. Dr. Emmet has accomplished this by establishing a vesico-vaginal fistula, which maintains complete drainage. Relief is at once secured for the patient, and the inflamed and ulcerated surface, which is no longer fretted by the urine, heals up in the course of four or six months. The fistula is then closed by the usual operation. This may be considered a great triumph of science, but unfortunately it is rather too complicated a measure to become general. Making a vesico-vaginal fistula, and then closing it, are operations easily performed by Dr. Sims or Emmet, with the assistance of trained hospital nurses; but many of you would find it no easy task. Taking this view of the subject, that plan of management ought not to be tried until all other means have failed, and then only by those who have had practice in that department of surgery.

Another objection to this treatment is, that while the patient is relieved from pain she is made distressingly uncomfortable by the constant trickling of urine from the fistula. I have tried to obviate this trouble to some extent by using a hollow globe pessary, made of hard rubber, with a tube attached to it. The globe is thickly perforated with small holes all round, except for about half an inch from where the tube begins. The globe is introduced into the vagina, and the tube projects through the introitus. The urine collects in the globe, and escapes through the tube; and by attaching a piece of flexible tubing to it the urine can be conveyed into a vessel. When the introitus vulvæ is small and the sphincter vaginæ perfect this answers very well, especially during the night, when the patient is in the horizontal position. When worn during the day it is necessary to have a rubber bag attached to the leg of the patient, to act as a receptacle.

I was led to devise this way of relieving patients with vesico-vaginal fistulæ by having one under my care who was in no condition to be operated on for the cure of fistula, owing to general ill health. She also had severe vulvitis, and the urine constantly passing over the inflamed surface drove her almost insane. Her suffering was terrible; so to relieve her until I could operate I had made the perforated stem globe pessary, or whatever you may see fit to call it. In case you ever should have to make a fistula for the cure of cystitis, you can try this method of keeping your patient clean and comfortable.

I come now to what I believe to be the most practical and important part of the treatment of these obstinate cases. I allude to drainage by means of the self-retaining catheter. About three years ago I had a very troublesome case of cystitis, which I faithfully tried to relieve by all the means at command, but without success. My patient was obliged to urinate every fifteen or twenty minutes, day and night, and the pain and want of rest were wearing her out fast. In the hope of securing rest at night I introduced a Sims' self-retaining catheter, with a rubber tube attached, to convey the water to the urinal. The result was very gratifying. She could sleep well, and gained in health and strengh rapidly, and the cystitis gradually improved. Since that time I have resorted to drainage in all the cases which resisted the ordinary treatment.

A description of this plan of treatment will be found in the Proceedings of the New York Obstetrical Society, recorded in the *American Journal of Obstetrics* for February, 1874. This method has been successfully practised by Hunter McGuire; a complete history of his case being published in the *Richmond and Louisville Medical Journal* for June, 1874. Dr. McGuire took a piece of tubing, about twelve inches long, and made holes in it about four inches from the end with a shoemaker's punch. He passed a silver tube into the bladder, and then pushed the gum tube through it until the perforated four inches were coiled in the bladder. This was retained in place by tapes fixed to the tube, and to a bandage passed round the patient's body. The tube became obstructed by mucus, but was easily cleared by injecting warm water through it. But this long piece of tubing being frequently expelled by the bladder, the doctor tried a shorter piece, and found it was more readily retained. The patient, after a time, went about and attended to her household duties, while wearing the tube, and in about four months made a perfect recovery.

This method of drainage is an improvement on Sims' catheter, but still is not all that we require. One of the best instruments for drainage is a catheter devised by Professor Goodman, and described in the *Richmond and Louisville Medical Journal* for February, 1869, as being used in the treatment of vesico-vaginal fistula; and I have recently learned that he has used it for years in treating cystitis. The following is Dr. Goodman's description of his catheter:—"It is about two inches in length, and bent to correspond to the curvature of the urethra; at the lower or external end there is a button ten-sixteenths of an inch in diameter, and at the other or internal end a shouldered, cup-shaped expansion, varying from five-sixteenths to seven-sixteenths of an inch in diameter, and bevelled on the convex aspect of the instrument, in order to make it easier of introduction, and perforated with a number of small holes. The stem, intervening between these two portions, is one and one-half inches in length and a quarter of an inch in diameter, with as large a bore as is compatible with the requisite strength. This catheter is self-retaining in all positions of the patient, first, by reason of the bulb at its upper extremity, which passes beyond the urethra into the bladder; secondly, on account of its curved shape; and thirdly, in consequence of the button being overlapped and grasped, as it were, by the vulva. At the lower end there is a slight projection or knob, over which an india-rubber tube may be slipped; this being inserted into a bottle at night or into a urinal when the patient is up, her person may thus be kept perfectly clean." I like this instrument better than anything yet made for the purpose of draining the bladder, but I believe that the sharp point of the conical end which rests in the bladder is objectionable, and I can see no good reason for having it so. At any rate, I intended to have the point made larger and more round, and try it.

In drainage by any method, you must remember that the instrument should be frequently removed and cleaned, and the bladder may occasionally be washed out at the same time.

Fortunate it is that we have this method of treatment now at our command. By this means we can restore to health and comfort the majority of those cases which have hitherto been considered hopeless.

When the cystitis is due to or is accompanied by prolapsus of the bladder, a pessary should be used to keep the organ in place. Sometimes you will find a case where this cannot be accomplished by any mechanical support. In these circumstances elytrorrhaphy is necessary, *i.e.*, a section of the anterior vaginal wall should be removed, and the edges of the wound brought together in the way devised by Dr. Noeggerath, and described in THE MEDICAL RECORD several years ago.

Progress of Medical Science.

A CASE OF HEMORRHAGIC CUTANEOUS SYPHILIS.—Dr. Bälz reports the following case: A blood-red exanthem suddenly made its appearance in the night, without any premonitory disturbance, covering the whole body, but being most marked upon the back, buttocks, upper arm, and thighs, of a patient whose syphilitic infection dated about a year back, and who at the time was suffering from an affection of certain joints, viz., of the little finger, wrist, right elbow, and both feet. This affection of the joints was subsequently shown to depend upon a hemorrhagic effusion into the articular cavities and the peri-articular tissues. The eruption was partly discrete, from the size of a millet seed to that of a thaler, partly confluent, consisting of dark-red blotches, which faded off on the following day, becoming subsequently reddish-yellow, and having scales. The cheeks and eyelids were livid and swollen, the gums perfectly normal. In some places the skin had a greenish-yellow color, as if from scorbutic hæmorrhages. The urine was dark, clear, acid, and contained neither blood nor albumen. Simultaneously with an attack of pleuro-pneumonia, which came on four days later, there was a new effervescence. Applications of ice were made to the chest, and at its seat extravasations of blood took place in the skin. This eruption resembled patches of urticaria, lasting for three or four hours as blotches, then becoming papular, and sinking to the ordinary level after 24 or 36 hours, the skin meanwhile being œdematous and sensitive to the touch. The patient's general condition became normal again after two days, although the experiment of applying an ice-bag to the skin again called forth the same phenomena. At the end of four weeks he passed from under observation, retaining only some pigmentation of the skin. The affection was decided to be syphilitic, from the form, color, seat, and polymorphism of the eruption, and from the presence at the same time of other specific manifestations. Bälz therefore concludes that the syphilitic poison determined a hemorrhagic diathesis, the proximate cause being unknown. He also refers to two other and similar cases.—*Archiv für Heilkunde*, XVI.—*Rundschau*, Sept. 15, 1875.

INTERNAL STRANGULATION OF THE INTESTINE BY CICATRICES DUE TO AN HÆMATOCELE.—M. Antoine Magnin, Hospital Interne, reports the following case: A woman was admitted to the hospital suffering from obstinate constipation and abdominal pain, with tenderness in the left iliac fossa. The bowels had not moved for fifteen days. The patient had been delivered of a seven-months' child one year before. Two months after the delivery her menses had returned, but with only scanty discharge, and accompanied with prolonged pains in the abdomen. At the time of admission to the hospital the menses had not appeared for two months. During the succeeding days the pains continued and increased, and were associated with vermicular contractions of the intestines, which were distinctly visible externally. On making a vaginal examination the uterus was found to be fixed in an immovable position, and in the vaginal cul-de-sac a hard surface was felt, which extended somewhat to the left of the uterus. The symptoms grew more severe, the contractions became more painful, the intestines were tympanitic, and vomiting began. The vomited matters were at first simply alimentary, and afterwards fæcal. The patient gradually sank, and died in collapse about one month after her admission to the hospital. At the autopsy signs of a recent peritonitis were found in the pelvic cavity, with a slight serous effusion, but no fæcal matter. The large intestine was greatly distended, and filled with fæces. On a line with the posterior superior border of the uterus a circular strangulation was found, which had been produced by cicatricial bands, which united the whole of the posterior portion of the uterus to the rectum and parts adjoining. A short distance above the strangulation a perforation was found, through which, on using some little force, a portion of the contents of the bowel could be forced into the peritoneal cavity.—*Lyon Médical*, Sept. 19, 1875.

CASE OF RHEUMATIC HYPERPYREXIA CURED BY ONE COLD BATH.—Dr. Sidney Ringer reports the case of a young woman, aged eighteen, who had been the subject of an attack of acute rheumatism. On the fifth day of her illness, the temperature was 102.8°, and remained between 102° and 104° for four days, when the fever gradually declined. She had pericarditis and endocarditis, and an attack of pleurisy with slight effusion on the left side. On the eighteenth day the fever had almost gone, and although she had not left her bed, she was considered quite convalescent. On the nineteenth day, however, the temperature rose to 103.6°; and the same night it was 104°. Early on the twentieth day, it was 104.4°; and at noon 106°. During the previous night she had been very delirious; and as the temperature rose, she became much worse. At noon (twentieth day), she was rapidly becoming comatose, could be roused, but with much difficulty, and had lost her sight. It was then determined to try the cold bath treatment. She was placed in the bath, and five minutes afterwards the temperature (in the rectum) was 106.2°.

In half an hour, thirty-five minutes after entering the bath, the temperature had fallen to 102.2°. Ten minutes later she was removed from the bath and the thermometer showed 101.2°, and thirty-five minutes afterwards, 99°. For seven hours afterwards the temperature ranged between 100° and 102° (in the axilla). Unfortunately there are no notes of the temperature of the bath, but Dr. R. thinks they commenced with a temperature of 90°, quickly reduced by the addition of ice to 60°. But a small amount of alcoholics was given while the patient was in the bath. As soon as the temperature began to fall, consciousness returned. There was no delirium, and all the serious symptoms were removed during the day. The morning after the bath, the temperature was 100.6°, and on the following day it fell to 99.6°, and never rose higher. From that time the patient rapidly improved and recovered. —*The British Medical Journal*, October 2, 1875.

TOTAL DESTRUCTION OF ONE LUNG.—Dr J. Dowling, of Tipperary, reports the case of a girl aged eighteen, who until within a few weeks of her death had been a domestic with a farmer, who, she stated knocked her down and kicked her. To this she attributed her illness, which was characterized by a "dragging" pain in the side of the chest, lassitude and debility. Her case was diagnosticated as one of pleuritic effusion, and after some time she was sent to hospital. She was then able to walk about the ward, but with a languid air and a feeble step. For two or three weeks before death, she was confined to bed; dyspnœa increased, her face became somewhat livid, and she lay upon her back. On post-mortem examination it was found that the right lung had been entirely destroyed, and the space formerly occupied by it was filled with purulent fluid. The former connection of the lung with the heart was marked by a semicartilaginous substance not more than two ounces in weight. Some serous effusion was found in the left pleural cavity, but the lung appeared healthy. The heart was of normal size. There was no fracture of the ribs, nor were there any marks of violence on the girl when she was first seen by her physician. Further investigation was prevented. The case is interesting from the fact that life was maintained until all but the whole of one lung was converted into pus, which was confined in the thorax; and also that no hemorrhage had taken place, while death from sudden hemorrhage might have been anticipated. The latter fact, Dr. D. thinks, seems to show that the process of suppuration is sufficient to occlude even vessels of the largest calibre.—*The British Medical Journal*, Oct. 2, 1875.

AUSCULTATION OF THE ŒSOPHAGUS.—Dr. T. Clifford Allbutt, after alluding to the want of attention paid to this means of diagnosis of diseases of the œsophagus, points out what he considers the best method of examination. At first, it is best to educate the ear upon a healthy subject. The subject takes a mouthful of water and swallows it at a given signal, the operator first placing a stethoscope upon the trachea anywhere between the hyoid bone and the supraclavicular fossa. The signal being given, the patient swallows, and a very distinct resonant gurgle is heard at the position of the stethoscope. This sound, which is very loud at the hyoid bone, becomes duller as the instrument is removed to deeper parts of the neck. Below the cricoid cartilage the sound is more heavy or solid in character, and the morsel is as it were shoved downwards with a "whiz." To examine the lower part of the œsophagus, he removes the instrument to the spine, and carries it down the left side of the spines of the eight upper dorsal vertebræ. Here the sound is still more distant, though still very distinct, and is like a smooth body slipping through with a sort of "cluck." The rapidity of the passage of the morsel is ascertained by putting the instrument over the cardiac orifice while a finger is placed upon the larynx. The moment of commencement of deglutition is known precisely by the rise of the larynx; the moment of its completion is recognized by the ear. The rate of the swallow varies a little in individuals.

The swallow may be heard to the right of the vertebral column in cases where the œsophagus has been pushed to that side by tumors.

The energy of the swallow should be considered apart from its rapidity. Almost all changes in the inner surface of the tube, Dr. A. says, may be regarded as diminutions of its calibre, and as checks to its peristalsis; so that where disease exists, be it ulcer, contraction or tumor, we hear there a slackening of the rate at which a morsel is pushed downwards, and a prolongation of the morsel itself. He says, "One will be surprised how readily the exact site of an organic stricture can be ascertained, and how easily can be proved the nervous nature of a dysphagia which causes no stethoscopic disturbances in the swallow."—*The British Medical Journal*, Oct. 2, 1875.

SUDDEN DEATH AFTER UTERINE INJECTION OF IRON.—The following case was reported by Dr. Cederschiöld before the Swedish Medical Society, and it is of interest, as being another instance where injection of fluids into the uterine cavity has been followed by sudden death. The patient was pregnant for the second time. A considerable hemorrhage followed the birth of the child, the uterus did not contract fully, and the fundus could be felt over the pubes. Ergot was of little use, and the hemorrhage recurred from time to time. Eighteen days later a strong solution of the perchloride of iron (1:7) was injected into the uterus. Every precaution was taken; the syringe was freed from air, the pressure on the piston was gradual, etc., but when the injection was half completed the woman suddenly complained of pain in the breast, stretched backward, drew a few short breaths, and was dead.

A post-mortem examination was made the next day. The small intestines were actively congested; a few spoonfuls of thin blackish fluid were found in the fossa of Douglas, and on the peritoneum in that vicinity there were numerous black spots. The uterus was pretty firmly contracted, was 11 centimetres long, 9 centimetres broad at the fundus, its greatest thickness 4 to 5 centimetres; the uterine walls at the middle 14 millimetres, at the fundus 10 millimetres. The interior of the uterus and vagina was stained dark-brown. The interior of the uterus was uneven and covered with a reddish granulation tissue, with the exception of the sides and fundus, where three superficial oval ulcerated surfaces were found, each 4 to 5 centimetres long. Here the uterine substance was exposed, had a ragged surface, in the centre of which there were leaf-like, somewhat firm structures 1 centimetre high and 3 long. These were intimately united with the underlying tissues, and consisted of organic muscular fibres. At the sides of these formations there were open-mouthed vessels, some of them large enough to admit a fine sound, which then passed into the larger veins of the uterus. These were slit up and followed into the hypogastric and iliac veins, and the vena cava inferior. The blood in these veins was found markedly coagulated, and stained brown. Bubbles of air were also found in them. The same condition was found in the right side of the heart. The lungs and other organs presented nothing abnormal.—*Hygiea*, August, 1875.

REDUCTION OF A STRANGULATED FEMORAL HERNIA BY LASSEN'S METHOD.—A woman of 53 had suffered for three years from a femoral hernia of the left side, and had never worn a truss. Symptoms of strangulation had existed for thirty-two hours when she was seen by Dr. O. Hase. After all the ordinary modes of reducing it had been tried in vain, Hase resorted to the method of taxis which Lassen recommends, based on his theory of the mechanism of strangulation; viz., that the incarceration is due to obstruction of the efferent end of the intestinal loop, which on its part is caused by distention of the afferent end compressing it at the neck of the sac. The lateral movements of the whole hernial tumor, which Lassen advises with the view of emptying the efferent end of the intestine, were in this case crowned with success, the bulk of the tumor gradually shrinking and the whole slipping back rather suddenly at the last, with entire relief of the symptoms.—*Centralbl. f. Chirurg.*, No. 26, 1874.—*Rundschau*, Sept. 15, 1875.

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THE HEALTH OF THE PEOPLE.

If common sense were a conspicuous element of human nature, there would be but little necessity for the assembling of Public Health Associations to remind the public that it had a health to care for. Unfortunately the masses are wofully lacking in this most uncommon sense, and require to be educated to an appreciation of such vital agents of self-preservation as tend to ward off disease, diminish the blighting force of epidemics, and place communities in the direct path to a condition of general salubrity. We are glad that this recent meeting of the National Health Association enjoyed so much publicity as was given it in the daily press of all the larger cities of the country, for the very reason that the latter offers the most direct avenue to the sympathies of the people. Some curiosity must naturally be excited in the latter to learn why so much space is accorded to what is to them almost a novel subject, in these days of newspaper sensationalism, and the sanitary movement thus rapidly gains a foothold. The people must never tire of the theme; health boards and associations must continue to impress its importance, and the daily newspapers, with their thousands upon thousands of readers, must perpetually repeat the story. The medical press reaches a different class of readers, but many of these are mere routinists, who think more of the cure of the sick than of the care of the well among them. Some of them—a few only, we hope—see more pecuniary profit in the practice of their profession, and give but little heed to measures of prevention. When we reflect upon the noble and far-reaching objects of this Public Health Association, we wonder that its meetings are not massive gatherings of men in every department of life and occupation, instead of the comparatively small number of sanitarians who were present at this last annual gathering. As was suggested by several of those who addressed that body, and by one especially whose text was the popularization of sanitary science, let the people know what the care of their health implies, covering as it does the prevention of sickness and deaths not only in individuals, but in communities, the proper regulation of habits of eating, drinking, and cleanliness; the supply of air, light, and water; the prevention of epidemic and epizootic diseases; the control over factories to abate nuisances; the hygiene of the mind, as involved in the regulation of study; the building and discipline of schools, asylums, jails, reformatories, and the prevention of mental disease, both emotional and intellectual, whether assuming the form of insanity or crime.

Are these subjects not interwoven with every phase of human existence? And yet unless brought home practically to the masses as a question of dollars and cents, as was done in one or two of the papers read before the Association, a permanent impression is with difficulty made upon them. Children will still be the involuntary victims of violated public hygiene in the ill-ventilated school-room, where insufficient breathing-air will be apportioned out to them by blundering builders, and when they grow up to unhealthy manhood and womanhood will, we fear, still continue to be exposed to dangerous sources of sickness and death, until the principles of sanitary science become the inheritance of every trade and profession.

Having thus stated the great objects of this Association, we have a slight criticism to make on the manner in which that body occupies the time of its members. Where so many papers are read, they must necessarily be of different degrees of merit and appropriateness. Some have merely a local importance, and are of but little general consequence; in other words, the health of some special community might be improved if the recommendations embodied in the paper were carried out, but the sanitary unsoundness of the rest of the country would still remain unaffected. It would be of little practical moment, for instance, if some of the submerged lands in certain sections of the Union were drained off to the sanitary and pecuniary profit of the neighborhoods interested; the world beyond would not be the more happy from the change. We think some sort of provision should be made in advance of the annual meeting for the presentation of such papers only as will have a widespread influence in promoting the cause of human health.

So many papers were read at the recent meeting, that discussion of points involved was almost out of the question. Let there be hereafter a due admixture of both reading and discussion, for in the friction of practical minds on practical subjects great truths may be eliminated that will inure to the general benefit. We trust that the next annual meeting of the Association, at Boston, will be so numerously attended that spontaneous discussion of sanitary matters, after the reading of papers, will be of frequent occurrence.

HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

In answer to an inquiry by some of the students of the Medical Department of the Michigan University, Prof. Palmer is reported to have said in substance: "With Dr. Sager it was a question of only two hundred dollars, while with us (the Faculty) it was a question of eighteen hundred dollars." If there is any real foundation for this assertion it would appear that the matter of principle is not the only one which has actuated the said faculty in the stand which they have taken. We sincerely hope that some reasonable excuse can be offered for lowering the dignity of the position assumed to the meanness of a pecuniary consideration.

THE PRESBYTERIAN HOSPITAL AFFAIR.

We are informed that a large minority of the Board of Managers of the Presbyterian Hospital, all laymen but one, have resigned their positions. This action is understood to be due to their failure to influence the majority to rescind their unjust action in dropping some of the medical staff, against whom there are no charges—a subject that has been fully discussed in The Record. We have no doubt but that the members of the medical profession will take immediate steps to show their appreciation of the course of these gentlemen in thus bravely standing up in vindication of their honor. Nearly all the members of the medical staff have also resigned, all efforts at an adjustment of the difficulties having failed.

Professor Lorain, of Paris, whose sudden death occurred so recently, has left in the memories of his confrères many incidents which illustrate the unselfishness of his character. Even the circumstances of his death serve to show how self-sacrificing he was. He was busy in his study preparing his first lecture on the History of Medicine, which he was to deliver in a few days, when a patient called to ask him to attend a child. The servant had received orders to say, "Not at home," but the poor father insisting, was let in, and Dr. Lorain, notwithstanding his wife's reminder that he was not well, went out, took an open carriage, and climbed the six flights of stairs which led to the room of the sick child. He had scarcely reached there when he begged to be laid on a bed. Two physicians were summoned, and found him cyanosed and convulsed, and in about twenty minutes he was dead. As a proof of the extraordinary effects which may follow arbitrary regulations, it is said that Dr. Grancher, one of the physicians in attendance, went to the office of St. Antoine Hospital, to borrow a stretcher with which to take the body of the professor home. The official in charge sternly refused to permit a stretcher to be taken out of the hospital, and though Prof. Lorain had been for many years physician to this hospital, and was at the time physician to La Pitié, his friends were obliged to obtain the necessary stretcher elsewhere.

As another evidence of his unselfish nature, it is related that in 1868, Lorain was inscribed on the list of savants who were to receive the Cross of the Legion of Honor. Hearing of this, he at once used all his influence to get the name of an elder colleague substituted for his own. This was done, and Lorain, had to wait some years before receiving the wished-for Cross for himself, as he obtained it only in August, 1875.

Reports of Societies.

AMERICAN PUBLIC HEALTH ASSOCIATION.

This body met at Baltimore, Tuesday, November 9th, and continued in session for four days. The list of those present included many prominent sanitarians. The following officers, elected in 1874, were present: *President*, Dr. Joseph M. Toner, of Washington City; *Vice-President*, Dr. Henry Hartshorne, of Philadelphia; *Treasurer*, Dr. John H. Rauch, of Chicago; *Secretary*, Dr. Elisha Harris, of New York. Drs. Stephen Smith, N. Y.; J. A. Stewart, Md.; J. J. Woodward, U. S. Army; J. S. Billings, U. S. Army; Moreau Morris, N. Y., and A. N. Bell, N. Y., were the Executive Committee.

The

ADDRESS OF WELCOME

was appropriately given by Dr. Stewart, Health Commissioner of Baltimore, and Chairman of Committee of Arrangements. Dr. Toner then delivered an Introductory Address as President of the Association, in which he alluded to the necessity of educating the masses of the people to a proper understanding of hygienic laws and principles. He also referred to the great progress evinced everywhere throughout the country in the furtherance of sanitary measures, and to the numerous American contributions recently made to the literature of the subject.

Dr. Ezra M. Hunt, of New Jersey, in a paper on

"DWELLING-HOUSES IN THEIR RELATIONS TO HEALTH,"

entered into the full details of the construction of houses, from the basement upward, showing, for example, that unless cellars were properly drained they were unhealthy for the purposes proposed; that walls should be porous to exclude draught, but admit atomized air; that fireplaces should be made available for ventilation, etc.

"The Sanitary Condition of American Watering-Places" was discussed by Dr. Henry Hartshorne, of Phila. He thought the same sanitary regulations should be in force in a watering-place as in a camp. These precautions were often neglected, and consequently places of summer resort sometimes suffered from the visitations of disease. Wells of drinking-water and cesspools were often in too close proximity. He suggested the proper method of protection against contamination of the soil, and that the sanitary records of watering-places should be transmitted to the Secretary of this Association.

Dr. Elisha Harris, of New York, then alluded to the

PROGRESS OF SANITARY WORK IN THE UNITED STATES DURING THE YEAR PAST;

to the establishment of State Boards of Health in several States; to the results already accomplished in Georgia in the few months that have elapsed since the State Board was established there; and to the effective researches made by the Massachusetts Board, who annually publish valuable reports of their labors. After the reading of this paper, Dr. Ezra M. Hunt, of New Jersey, stated that he had great faith in the good results to be attained by educating the public mind; that boards of health should not be too medical in their composition. Dr. Hartshorne thought that these boards constituted the most efficient method of rousing the public.

LEGISLATION UPON SANITARY MATTERS

was discussed by **Dr. E. Lloyd Howard**, of Baltimore, especially in its relation to that city, which had long suffered from unjudicious and costly, but ineffective legislative interference in such matters.

Dr. F. B. Hough, of Lewis Co., New York, read a paper bearing upon

THE EFFECTS OF FORESTS AND THE CULTIVATION OF TREES ON THE PUBLIC HEALTH,

alluding also to their influences as agents for the production of disease, according to the varying conditions of temperature, moisture, electricity, etc. Minute observations had been made by Prof. Ebermayer, of Bavaria, and were quoted in this paper, exhibiting changes of temperature in the woods at different altitudes and seasons.

Mayor Latrobe, of Baltimore, presiding at the evening meeting, alluded to the care taken of the human health in the palmy days of Rome, when the Archiatri Populares, or State Physicians, constituted a college, whose duty it was to devise means for the preservation of the public health.

Prof. Henry Coppee, President of Lehigh University, considered

HEALTH SUBJECTIVELY,

as to the habits of individuals, and man's study of his own wants and requirements for health-preservation, so that hygiene may be properly appreciated by each one for himself.

Dorman B. Eaton, LL.D., in a discourse on

SANITARY ADMINISTRATION,

considered that the majority of people understood the necessity of sanitary laws and precautions, and how to apply them, but thought that in these days, when the whole world may be agitated by the prevalence of a very distant localized epidemic, that this country ought not to be left so very far behind by monarchical governments, in all measures for the improvement and preservation ot human health.

On Wednesday morning a number of new members were elected, and the Treasurer's report read, after which **Dr. John S. Billings** presented a paper on a

PLAN FOR SYSTEMATIC SANITARY SURVEY OF THE UNITED STATES.

The most important facts yet collected have been those furnished by medical army officers at the various military posts. Schedules were exhibited, for uniform registration, to be filled for all cities of 5,000 inhabitants and over, on such points as location, population, drainage, market supply, health laws, etc., etc. A committee was, on motion of Dr. Busey, appointed to carry the plan into effect, and consists of the following gentlemen:

Dr. Elisha Harris, New York, chairman; Dr. E. M. Hunt, New Jersey; Dr. H. B. Baker, Michigan; Dr. John H. Rauch, Illinois; Dr. James A. Stewart, Maryland; Dr. C. B. White, Louisiana; Dr. J. N. Logan, California; Dr. J. S. Billings, U. S. A., Washington; Dr. P. H. Brown, Dr. Joseph M. Toner, Washington, D. C.; Dr. J. M. Woodworth, Washington, D. C., with power to add.

Dr. W. C. Van Bibber, of Baltimore, read a paper on the

SELECTION OF SUMMER RESORTS,

as adapted especially for the treatment of the various sufferers from rheumatism, dyspepsia, debility, phthisis, etc. There are two thousand such places, visited annually by five hundred thousand persons, and it is important to select for invalids such as are appropriate for the particular affection, as many of these resorts might be injurious in some forms of disease while indicated in others.

SOIL, DRAINAGE, ETC.

Papers were then read by Prof. George H. Cook, of New Jersey, on "The Drowned Lands" of portions of that State and of New York, and by Dr. Sanford B. Hunt, of the same State, on "Soil Drainage and Atmospheric Humidity," as bearing on the causation of disease.

Prof. H. R. Nash, in a paper on

"SEWER GAS AS A CAUSE OF DIPHTHERIA, MEMBRANOUS CROUP, ETC.,"

gave an instance in which, in one family of eleven, exposed to such deleterious influences, five were attacked with diphtheria and three with scarlet fever. What prolonged cases of ill-health may result from such exposure, it is impossible to estimate.

General E. L. Vielé read a very elaborate paper on

"DRAINAGE, SEWERAGE, AND WATER SUPPLIES OF CITIES,"

explaining the difference between drainage and sewerage, and alluding to the fact that a knowledge of mathematics, hydraulics, chemistry, and meteorology was essential to a full appreciation of the problem of sewerage. In conclusion, he advocated the employment of the pneumatic system in this country.

The subject of the employment of

"POISONS IN AGRICULTURE AND HORTICULTURE."

discussed by Prof. R. C. Kedzie, of Michigan, included especially an inquiry into the effects of arsenical preparations—particularly Paris green—when so used. The latter substance was stated as not likely to affect the plant when applied in the usual minute quantities, because the plant does not absorb it; but when applied to wheat or to the land on which it is growing, it appears in the grain, rendering it unfit for use.

NERVOUS DISEASES OF SCHOOL CHILDREN.

Dr Allan McLane Hamilton, of New York, presented a paper on "The Nervous Diseases of School Children," showing how imperfect school hygiene affected their nervous system. Interesting facts were mentioned, exhibiting how much mischief was caused by too close confinement in poorly ventilated school-houses, over-study, fatigue, etc. Dr. D. F. Lincoln, of Boston, and Dr. A. N. Bell, of New York, followed in the same strain, the former reading one on "School Hygiene;" the latter on "School-room Stunting," the evils of improper and unnatural treatment of the child here being particularly dwelt upon.

Prof. W. C. Kerr, of North Carolina, State Geologist, read a paper on the

"DRAINAGE AND WATER SUPPLY OF SOME OF THE SOUTHERN STATES,"

after which the Association adjourned until evening when Prof. Stephen Smith alluded to the "Limitation of Perilous Massing of Populations in our Cities," especially as it concerned the health of the poorer classes, and the necessity of educating them in the principles of sanitary science.

Prof. F. Donaldson, M.D., of Baltimore, followed in a paper on a congenerous subject,

"THE INFLUENCE OF CITY LIFE AND OCCUPATIONS IN THE DEVELOPMENT OF CONSUMPTION,"

treating of the effects of impure air, the introduction of foreign matters, as finely divided flax, flint, steel, etc., into the lungs, the absence of sunlight, etc., as exciting causes of this disease. Sedentary life, insufficiency of food, etc., were also discussed, and similar relations of cause and effect.

OFFICERS ELECT.

On Thursday morning, officers were elected for 1875–76. These were as follows: President, Dr. E. M. Snow, R. I.; Vice-Presidents, Drs. John H. Rauch, Ill., and Prof. F. A. Walker, LL.D., Conn.; Treasurer, Dr. J. Foster Jenkins, N. Y. Executive Committee, Hon. A. W. Boardman, Mass.; Drs. J. S. Billings, U. S. Army; J. M. Woodworth, D. C.; Lewis H. Steiner, M.D.; Ezra M. Hunt, N. J., and Jackson S. Schultz, N. Y. Dr. Elisha Harris, of New York, was elected Secretary in 1873 for three years.

A paper was then read by Frank Hambleton, Civil Engineer, of Baltimore, on

HOUSE CONNECTIONS WITH SEWERS,

showing the advantages of a general system of sewerage over the antiquated cesspools.

HOG CULTURE IN NEW YORK.

Jackson S. Schultz, of N. Y., in a paper on the "Utilization of Animal and Vegetable Refuse Substances in Large Cities," suggested that instead of throwing the garbage and offal of New York into the sea, or letting it go to absolute waste, some local point should be chosen, an island in Long Island Sound, for example, where all refuse matter, garbage, etc., from the city should be deposited, where hogs in sufficient number would devour it.

What a Great Epidemic Cost a Great City (the small-pox epidemic at Philadelphia in 1871–2) was explained in an unusual way by Dr. Benjamin Lee, of Philadelphia. What with increased expenditures by the Board of Health; loss by sickness and death and debility; diminution of travel and traffic; loss to hotel-keepers, retail dealers, etc., the cost is estimated at about twenty-five and a half millions of dollars. The figures are separately given for each item discussed.

The Association responded to the invitation of the Centennial Medical Commission of Philadelphia, to send delegates to the International Medical Congress in 1876, by appointing the following gentlemen: Drs. Toner, D. C.; C. F. Folsom, Mass.; Billings, U. S. A.; Stephen Smith, N. Y.; C. B. White, La.; F. G. Thomas, Ga.; Kedzie, Mich.; Stewart, Md.; Logan, Cal.; H. A. Johnson, Ill.

Dr. Thomas G. Demott, of Harrisburg, Pa., alluded, in a paper on

"SMALL HOSPITALS OR VILLAGE INFIRMARIES FOR MANUFACTURING AND MINING POPULATIONS,"

to an act passed in 1874 by the Legislature of Pennsylvania, to provide for the support of sick and injured poor, undergoing hospital treatment in cities, out of the county treasury.

Prof. Carl Pfeiffer, of New York, in a paper on the subject of

VENTILATION,

advocated mechanical or propulgent ventilation as the most perfect system. He thought the poor should be taught that food is scarcely more important to them than ventilation.

A paper by Dr. H. O. Hitchcock, of Michigan, investigated the relation of alcoholic drinks to health, giving the statistics of consumption of alcoholic liquors of all kinds in the United States, the sales of retail liquor dealers averaging $48.00 to every man, woman, and child in the land. Of the insane in the country at the time of taking the last census, more than 22,000 were probably due to alcohol, and 18,000 idiots may owe their idiocy to the same cause. The loss to the nation, by the death of adults from alcohol, is estimated in value at from one hundred to nearly two hundred million dollars.

A paper on "Alcohol in Relation to Life Insurance," was read by Dr. W. T. Harrison, Jr., of Baltimore; two on Yellow Fever, by Drs. Sternberg and Harvey C. Brown, of the army; and one on North Carolina as a sanitary resort, by Dr. W. Gleistenar, of that State. The "Diseases of the Indian Tribes of the United States" were described in a paper by Dr. Josiah Curtis, of the Indian Bureau, as prevailing chiefly in April, May, and June, and as including principally scrofula, rheumatism, and bowel and skin affections. Captain Jack's belligerent attitude was said to have had its origin in the jealousy of rival "Medicine Men."

In the evening, Dr. Steiner, of Maryland, discussed the sanitary points that might be evolved from the question,

"AM I MY BROTHER'S KEEPER?"

and Dr. Andrew D. White, LL.D., of Cornell University, addressed the Association on

SANITARY CARE AND PHYSICAL CULTURE IN UNIVERSITIES, COLLEGES, ETC.,

advocating physical exercise, the teaching of sanitary science, etc., and citing the fact that of 294 members of crews of Oxford and Cambridge, only 7 (a number not more than one-sixth of the average London death-rate in the same number), had died of cardiac and pulmonary disease.

On Friday, after the reading of a paper by Dr. H. W. Dean, of Rochester, N. Y., on

SANITARY PRINCIPLES IN HOUSE ARCHITECTURE,

one on

THE POPULARIZATION OF SANITARY SCIENCE,

was offered by Prof. E. W. Claypole, of Antioch College, who advocated the necessity of diffusing information on every point involving the health of individuals or communities. He thought that lunatics and criminals fared better than children do in the schools, so far as ventilation and attention to sanitary laws are concerned.

MISCELLANEOUS PAPERS.

A number of papers were read by title only, after which interesting papers were read by Dr. Elisha Harris, on General Vaccination; by Prof. James Law, M.D., of Cornell University, on "Hereditary Entailments in Domestic Animals and the Human Family;" and by Dr. T. M. Stevens, of Indiana, on "Water Filtration."

Resolutions were passed asking the co-operation of the General and State Governments for the establishment of a uniform system of registration of births, deaths, and marriages; for a Committee of Publication to examine and publish such papers in full as they may deem advisable; of respect to the memory of two deceased members, Drs. Krackowizer and Peate; and of thanks to the press.

The Association then adjourned, to meet in Boston, November, 1876.

Correspondence.

THE PRESBYTERIAN HOSPITAL AFFAIR.

To the Editor of The Medical Record.

Dear Sir:—Since I am no longer connected with the Presbyterian Hospital, I desire to say, through your columns, a few words concerning that unfortunate institution, for the sake of correcting in the minds of some of your readers certain impressions which I know to be erroneous.

It has been stated that when the hospital was opened, the medical profession in this city was very much dissatisfied with the selection that was made of a Medical Staff, because the "one medical gentleman" in the Board of Managers had appointed his own students to nearly every position. It is a fact that seven out of the sixteen men selected had been students in this gentleman's office; and considering the large number and class of students he had had, it was not so very surprising. The fact is, that the gentleman in question urged the appointment of only two men on the staff, of whom one had been his student and the other had not.

At the regular meeting of the Medical Board in May, 1874, the ballot for President resulted in the election of a gentleman who had never before held the office. It has been stated that the Board of Managers were "fairly incensed" at such independent conduct on the part of its Medical Staff. It would seem that such a statement must be greatly exaggerated, and I have heard it denied by more than one member of the Board. Article 3, Section II., of the Rules and Regulations of the Hospital, provides, that "the Medical Board. . . . . at the first regular meeting, in May of each year, shall elect a President, Vice-President," etc. Each of your readers can decide for himself whether voting for the man of his choice is an offence for which he ought to be punished by being "dropped" from the staff of a hospital.

At the annual meeting of the Board of Managers in April, 1875, Drs. Ball, Wheelock, Day, and Wynkoop were "dropped" from the visiting staff, and Drs. Hubbard, Burrall, Smith, and Woolley were elected in their stead, the change being effected under Section I. of the Rules and Regulations, which reads: "All Physicians and Surgeons connected with the Hospital shall be elected annually." We are told that this rule was copied from the Code of the New York Hospital, where it had worked well for more than a century, by "the only medical gentleman" on the Board of Managers. Suppose it was. A celebrated English jurist has said that there was not an Act of Parliament through which he could not drive a four-in-hand. Certainly no medical *gentleman* intended the rule to be applied in such a case as this. It was meant for cases in which *every one* interested in the good of the hospital—the Medical Board included—were satisfied that a change was absolutely needed; for instance, if some one of the staff had become insane and refused to resign, or had become notorious as an abortionist, in which case positive proof before a court of law is well known to be next to impossible. The rule is sufficiently good as it stands; fault may well be found with the way in which it was applied.

As soon as this action of the Managers became known, Drs. Clark, Peters, Allin, Stimson, Woodruff, and myself, in one communication, and Drs. Buck and Post subsequently in another, protested to the Board of Managers against their action. Dr. Crane was absent in Europe. The remaining three members of the Board, by their silence, acquiesced in what had been done. At about the same time—early in May—the protest from the profession at large, which has already appeared in your columns, was sent in. The Visiting Committee replied to the protest of Drs. Buck and Post; the other two were passed by in silence.

The four gentlemen who were "dropped" asked from the Managers the reason. The reply came that there were no charges to be made against them, either as to their character as gentlemen, their professional ability, or the faithful discharge of their duties; but the Board of Managers insisted on their right to "drop" medical officers whenever they saw fit.

This action of the Managers was not unanimous; was taken without the gentlemen "dropped" having had any warning or opportunity to resign; and in the face of a most earnest protest on the part of "the only medical gentleman" on the Board and several of his friends. Of course it was not done out of mere caprice. The Visiting Committee engineered the affair; and when they were asked why the change was desired, the answer was, that the Resident Directress had hinted that if a change was not made she should consider that her services were no longer desired. They are men of veracity, and their statement may be accepted as a *fact;* deny it who can. The Managers appear to have concluded that they could more easily find four doctors to take these places than one new Resident Directress. The facility with which they filled the vacancies on the Medical Staff, was, I confess, surprising. The four new appointees accepted with little delay, and took their seats in the Medical Board at its next regular meeting. I am told that they say that they accepted without knowing what the condition of affairs was. As far as two of them are concerned, I cannot believe that they ever said so, for I *know* that they were informed. However that may be, will any one claim that they now retain their positions with the same lamentable lack of information?

At the June meeting of the Board of Managers, Drs. Peters, Allin, Stimson, Woodruff, and myself resigned our positions, on the ground that an act of great injustice had been done to four of our former colleagues, in that they were "dropped" without cause; that four new men had been appointed without nominations having been asked from the Medical Board; and that a perfectly respectful protest had been ignored. Remaining, under the circumstances, we would have tacitly implied our own willingness to be "dropped" in April next, if the Resident Directress should then consider it advisable.

With reference to the second reason for resigning, a word of explanation is necessary. Art. 7, Section II., of the Rules and Regulations, reads: "In case of vacancy in the Medical Board, they (the Medical Board) shall, at the request of the Board of Managers, recommend suitable persons for appointment." I am informed that the gentlemen who framed this rule *intended* that the Managers should *always* request nominations, and that the Medical Board should *always* make them. Such would be a very rational exposition of the meaning of the Rule; this course was always taken previous to this particular instance; and since our resignations have been accepted, the Medical Board has again been asked to nominate our successors. The Managers, by their acts, acknowledge the propriety of this course when it suits their convenience; but, in the particular instance under consideration, take refuge behind the loose wording of the rule, and the fact that these were not vacancies occurring in the middle of a year, but were new appointments for the ensuing twelve months.

Our resignations were not accepted in June, but a committee of five of their own number was appointed by the Board of Managers to "confer" with us. We met these gentlemen three or four times, and on the 16th inst. they made their report, looking toward an adjustment of the difficulty. The report met with such a reception that all the gentlemen whose names were appended to it, and who were present, resigned their seats *instanter*, and the resignations of others will be presented to the Board at their next meeting.

The position of the Board of Managers is, that, when they see fit, they will "drop" a gentleman from the Medical Staff without giving him a moment's warning, a chance to resign, or the least opportunity to defend himself. It remains to be seen whom they can get to serve them on these conditions—the only ones on which a medical man can take or retain a position on the staff of the Presbyterian Hospital. It is worse than folly for members of our profession to talk about "upholding the dignity of our calling" at one moment, and submit to such treatment at the next. Moreover, this is not a question which affects only those who have lost, resigned, or still retain positions at the Presbyterian. It affects every medical man who now holds, or ever hopes to hold, a position in any hospital, dispensary, or other charitable institution in this city—probably in this country. If this action is allowed to become an established precedent, it is impossible to foresee where the evil will end. Indeed, it is already rumored that one man who occupies a seat among the Governors of the New York Hospital as well as the Managers of the Presbyterian, has said that "no one of the doctors who resigned at the Presbyterian at this crisis need expect to keep or get a position at the New York." So far from being an affair in which the medical profession, or even the public at large, "need not be supposed to interest themselves," it is without doubt, for all persons in any way interested in public charities, the most weighty and important question that is likely to present itself during our lifetime.

I have not written this communication with any harsh or spiteful feelings. Those members of the Board of Managers whom I have met have always treated me with the utmost courtesy, and I have still the good of the hospital as much at heart as any one of them. But I am thoroughly convinced that their way of treating a hospital staff is derogatory to the profession I have chosen, and can never result in the success of a charitable enterprise, or the welfare of the patients.

Samuel B. Ward, M.D.,
Late Visiting Surgeon Presbyterian Hospital.

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Mr. Rawdon Macnamara has been elected surgeon to Westminster Hospital by a large majority of votes.

Medical Items and News.

The Presbyterian Hospital Affair—A Call for a Medical Mass Meeting.—The members of the medical profession of the city of New York who believe that the recent action of the Board of Managers of the Presbyterian Hospital in the matter of failing to reappoint certain members of the medical staff, against whom no charges were preferred, is injurious to the hospitals in their beneficent work, are invited to meet at the theatre of the Union League Club, Tuesday evening, Nov. 30th, at 8 o'clock, to give public expression to their views. Signed.

T. M. Markoe, A. DuBois, Lewis A. Sayre, J. W. McLane, Erskine Mason, A. Flint, Jr., H. B. Sands, F. J. Bumstead, A. Jacobi, T. Gaillard Thomas, F. N. Otis, Everett Herrich, Francis Delafield, Charles E. Hackley, William H. Thomson, D. B. St. John Roosa, James R. Wood, Horatio Bridge, J. W. S. Gouley, Charles K. Briddon, William T. Lusk, C. R. Agnew, Thomas T. Sabine, Robert Watts, Meredith Clymer, R. F. Weir, Charles McBirney, Edward G. Loring, J. E. Janvrin, Frederick R. Sturgis, Henry F. Walker, J. R. Leaming, J. P. P. White, William Polk, David Magie, J. Marion Sims, Frank H. Hamilton, Charles Inslee Pardee, J. W. S. Arnold, Woolsey Johnson, R. A. Witthaus, J. J. Hull, S. F. Morris, William A. Hammond, Edward Curtis, and others whose names came too late for publication.

Prof. Frank H. Hamilton's Work on Fractures and Dislocations, the fifth edition of which has just made its appearance, is to be translated into German by Dr. A. Rose, of this city, and to be published by the celebrated firm of Vandenhoeck and Ruprecht, of Göttingen—a compliment which has not been paid to any other American book on Surgery.

Dr. J. C. Hutchinson, of Brooklyn, N. Y., is to lecture on Deformities at the College of Physicians and Surgeons of this city during the present session.

Dr. Gussenbauer, the clinical assistant of Prof. Billroth, has been appointed Professor of Clinical Surgery in the University of Liége, in Belgium.

The British Medical Association will meet in 1876, at Brighton, and the Address on Medicine will be delivered by Dr. Sieveking, the Address on Surgery by Mr. Wheelhouse, of Leeds, and the Address on State Medicine (Public Health) by Dr. Carpenter, of Croydon.

John Locke.—A new work on the life of this illustrious man is soon to be published by Mr. H. R. Fox Bourne, to which will be prefixed a curious collection of medical memoirs and notes, showing how extensive were his studies and practice as a physician, and connecting him as a joint-worker with Thomas Sydenham, "the father of English medicine."

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Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office,* 27 *Great Jones Street, one week previous, to insure their appearance.*]

Thursday, Dec. 2d.—N. Y. Academy of Medicine, No. 12 W. 31st st.

Friday, Dec. 3d.—N. Y. Medical Journal Association, No. 12 W. 31st st.

Original Lecture.

UROCYSTIC AND URETHRAL DISEASES OF WOMEN.

By ALEX. J. C. SKENE, M.D.,

PROFESSOR OF GYNÆCOLOGY IN THE LONG ISLAND COLLEGE HOSPITAL, BROOKLYN, N. Y.

LECTURE II.

GENTLEMEN:—Progress in the study of pathology enables us to understand more fully the various changes of structure which give rise to deranged action on the part of the various organs of the body, and therefore we have more *organic* diseases on our present list, and fewer *functional* disorders.

The rule has been to call any trouble a functional disease when we could discover no change of structure in the case. On the other hand, improved means of investigation now enable us to ascertain more positively that in certain deranged functions, the organs involved are normal in structure. This is particularly applicable to the derangements of the bladder in the female.

There are several functional disorders of the bladder due to diseases outside of the organ itself, and in order that you may easily follow me in what I have to say about these derangements, let me enumerate the various ways in which the function of the bladder may be disturbed.

1. Frequent urination.
2. Difficult urination and retention.
3. Painful urination.
4. Pain after urination.
5. Incontinence of urine.

The majority of these deranged actions on the part of the bladder may be due either to functional or organic disease. Those purely functional I shall now tell you about.

In the variety of conditions of the nervous system grouped under the head of "hysteria," we often observe that frequent urination is a prominent symptom. The cause, in many cases, is the peculiar character of the urine secreted in this disturbed condition of the nervous system. The limpid urine of hysterical patients is deficient in solids, the watery portion being greatly in excess. This unnatural composition renders the urine irritating to the bladder, so that it cannot be long retained. The quantity of urine secreted is also excessive, which, together with the irritating quality of the fluid, renders urination necessarily very frequent.

But apart from the frequent urination which occurs, for the preceding reasons, in severe attacks of hysteria, we often see cases of frequent evacuation which can only be accounted for by the state of the nerves which govern the action of the bladder. When the quantity and composition of the urine are normal, and the patient can retain it without pain or distress during the night, but has to pass it every hour or two during the day, we may safely conclude that the trouble is purely functional, and due to a disordered state of the nervous system. The only condition which resembles this history is occasionally seen in prolapsus, the patient being free from trouble while reclining, but has to urinate frequently when in the erect position.

Another class of cases resembling the hysterical patients in the frequency of urinating, but differing in every other respect, we find in those who suffer in consequence of the habit of masturbation. The constant congestion and irritability of the pelvic organs, caused and kept up by the unnatural and excessive exercise of this sexual function, give rise to frequent urination. Such patients complain of general weakness, which is not accounted for by any organic disease of the general system. Nor is there disease of the bladder; it is simply enfeebled and irritable like the rest of the pelvic organs. To make a correct and positive diagnosis in such cases is by no means easy, because it necessitates our detecting the habit of masturbation, and this is usually one of the most difficult tasks for the diagnostician. It is not always prudent to question the patient regarding the habit; and even when we do, they frequently fail to comprehend the question, or they answer falsely in the negative. We are thus generally left to guess at the truth of the matter.

The symptoms developed by masturbation are depression of the nervous system, manifested by lassitude, sadness, or emotional manifestation of joy and sorrow—easily affected to smiles or tears. The eyes are dreamy and heavy, and the pupils dilated. Such subjects are excitable, irritable, and easily exhausted. They often have headaches. Nutrition is apparently good in some cases, as shown by the fair supply of flesh; still they often suffer from acute indigestion, although at times the appetite is remarkably good. The bowels are usually constipated, and the muscles are soft and flabby. The exhalations from the skin are changed in some cases, so that a peculiar odor is noticeable about such persons. This odor cannot be described, but when once experienced can be easily remembered.

In all this class of functional derangement of the bladder from neurotic causes, the symptoms vary in severity to a great extent in the same individual. The trouble is by no means regular and constant in its manifestations as in organic diseases. Whatever disturbs the nervous system will increase the disorder. The rule is, that frequent urination is the prominent trouble, but occasionally painful micturition is complained of. It is then simply a slight scalding pain experienced when the urine is passing over the irritable or chafed mucous membrane about the meatus urinarius.

Hysterical patients frequently suffer from retention of urine. Some of them complain for a time of difficulty in emptying the bladder, and finally fail to do so altogether. At other times they all at once find that they cannot urinate. There are conflicting views regarding the cause of this retention, some believing that such patients can't urinate, and others that they won't. Those who believe that the trouble is feigned, not real, do so on the ground that in this morbid state of the nervous system they enjoy catheterization, which would be distressing to any one of healthy mind and body. Others claim that in the extreme sexual excitement which occurs in some cases of hysteria, the chronic erection of the clitoris makes pressure upon the urethra, and prevents the flow of the urine through the then compressed urethra. I am satisfied that both kinds of cases occur. There are those who complain of retention when they know that the doctor will use the catheter, but they can urinate easily when they please. Others I have seen who were suffering from excessive and painful distention of the bladder, and would have gladly relieved themselves if they could. Retention of the urine from this cause occurs in the amorous, who either do not practise masturbation, or who have broken off the habit.

The function of the bladder is frequently deranged from diseases of the general system, and by affections of the other organs of the pelvis. In many of the acute diseases, where the urine is loaded with solid constituents, urination is often painful. This symptom is usually accounted for by the fact that it occurs during the constitutional disease, and passes off, as a rule, in a short time.

The effect of malarial poison on the bladder and urethra is very peculiar, and requires a notice in this connection. The trouble produced in this way has been called urethral fever, and is described as an inflammation of the mucous membrane of the urethra. It might more properly be called malarial fever of the urethra. As I have observed this affection, the bladder and urethra are usually both affected, but I do not consider the disease one of a well-defined inflammatory character. There are usually symptoms of malaria present, but not necessarily chill and fever. On the contrary, I believe that I have observed the trouble more frequently in remittent than in intermittent fever, and very often where the constitutional symptoms were not more than a slight derangement of the digestive organs with moderate elevation of temperature in the after part of the day.

The symptoms vary, but usually are as follows:—The patient complains of frequent desire to urinate, and some vesical tenesmus; severe burning pain on passing water, with stinging and burning in the urethra after urination. The history of such cases resembles acute gonorrhœal urethritis so far as the abruptness of the attack and the tenderness and pain of the urethra are concerned, but there is usually no discharge, or at least very little. Under the proper treatment the disease disappears as promptly as it comes on. In many cases the suffering is greatest in the afternoon and early part of the night. The treatment is simple, and usually very satisfactory. Quinine* in full doses for one day, followed with small doses before meals for a week, will cut short the trouble, and prevent its return. The digestive organs require attention when they are out of order, as they generally are.

Functional disorders of the bladder, caused by diseases of the other pelvic organs, are frequently met in practice. In this class the bladder trouble is secondary to some primary and more important affection, but the derangement of its function is often the most troublesome and most prominent symptom, hence it is important to understand its relations to the primary disease in order to make a correct diagnosis. This class of functional disorders frequently resemble in history some of the organic diseases of the bladder, so that care is necessary in order to distinguish the one from the other. What I may say on this subject will have reference to diagnosis only. When we know that the trouble of the bladder is due to disease of some other organ, attention is at once turned to the primary trouble; but we must keep in mind these facts when we are investigating the derangements of the bladder.

Diseases of the rectum often affect the bladder sympathetically. Irritation and pain of the rectum, from any cause, affect the bladder less or more. Chronic hemorrhoids will cause frequent urination, and so will rectal fissures, especially after defecation. Abscesses in the neighborhood of the rectum will frequently cause retention of the urine. Very troublesome irritation of the bladder comes from ascarides. The itching of the anus and rectum caused by these troublesome little worms keeps up an almost constant desire to urinate. Children are the most troubled with these parasites, but women often suffer in the same way.

Acute pelvic peritonitis and cellulitis cause great distress in many cases by their effects on the bladder. A constant desire to urinate, without the ability to make straining efforts to accomplish the object, are very often observed in all these acute pelvic inflammations. The disturbance of the bladder is of course only a symptom of the more important and primary trouble, and requires only to be mentioned here. The after-effects of pelvic peritonitis on the bladder is what I especially desire to call attention to at present.

The adhesions formed by the products of the inflammation of the pelvic peritoneum are in some cases sufficient to prevent the distention of the bladder and frequent urination is then a necessity. This derangement of function generally exists alone. The urine is retained without trouble up to a certain amount; it is passed without pain, and no vesical tenesmus follows evacuation. Unless the contraction of the bladder is extensive and the frequent necessity to urinate very troublesome, patients rarely consult us for the trouble.

Resembling this form of deranged function of the bladder are the troubles which come from displacement of the uterus. In all dislocations of the uterus the bladder suffers less or more. In prolapsus the bladder is drawn down, and cannot expand with the same facility, or else the extra traction on the utero-vesical ligaments produced by the prolapsus increases the irritability of the bladder. Whatever the explanation may be, the fact is that in prolapsus uteri the subject cannot retain the urine for the usual length of time.

Frequent urination from this cause is as marked in prolapsus in the first degree as in more advanced stages of the trouble. When the displacement has existed for a considerable time, the bladder accommodates itself to the new relation of things, and the calls to urinate become less frequent.

In complete prolapsus of the uterus and bladder, we find, in place of frequent urination difficult urination, and in rare cases retention. I presume that in such cases the bladder is never completely emptied. The little urine which remains decomposes, and in time causes cystitis, which greatly increases the suffering of the patient. Such cases are very much like the cystitis which in old men comes from partial retention of the urine caused by enlargement of the prostate gland.

Anteversion usually causes frequent urination in a more marked degree than prolapsus. In this displacement the uterus is generally enlarged and elevated, so that the body and fundus rest upon the bladder and impede its distention.

Retroversion affects the bladder the same as prolapsus, except when the uterus is very much enlarged and is thrown backward and impacted in the pelvis, so that the cervix presses firmly on the urethra. In such cases urination is impossible. Examples of this are seen in retroversion occurring in the early months of pregnancy or after confinement.

Functional derangement of the bladder, arising from the various forms of displacement of the uterus, is characterized by one peculiarity, and that is, that the trouble is aggravated by the patient standing or walking, and relieved by lying down. You can usually tell that the frequent urination is caused by displacement when the position of the patient so affects the symptoms. The exceptions to this rule are very rare, but one of these I related in my previous lecture.

I have observed that patients with anteflexion often suffer from frequent urination, but I have not been able at all times to say whether the trouble was due to the fundus uteri resting on the bladder or to the supersensitiveness of the whole pelvic organs. I have inclined to believe that the latter was usually the cause.

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* Brichelean *Archives Général de Médecine*, was the first to give quinine in urethral fever.

Having thus briefly disposed of some of the more important functional disturbances of the bladder, I now turn your attention to diseases of the urethra.

Acute urethritis, though not a very frequent disease among women, is a very distressing one to the patient, and often difficult to relieve. In many cases you will find the pathology specific, *i.e.*, due to gonorrhœa; and I would treat this subject as gonorrhœa in women, were it not that it is often difficult to tell a specific or venereal urethritis from simple inflammation of that portion of mucous membrane. There is a difference in history when we can get correct testimony from the patient. Simple urethritis usually comes on gradually, and is preceded by symptoms of uterine or vesical disease; while gonorrhœa comes on rather abruptly, and is preceded or attended by acute vaginitis and vulvitis. The chief symptom is painful urination. Sharp scalding is produced by the urine passing over the tender surface. There is often a frequent desire to urinate, but not so urgent as in cystitis. In some cases the urine is retained for a long time, evidently from a dread of the pain caused in passing it.

An examination of the parts will show signs of inflammation about the meatus, with or without the same condition of the vulva. Occasionally there is a discharge seen coming from the urethra, but if the parts have been recently bathed this may not be apparent. Introducing the finger into the vagina and pressing upon the urethra from above downwards, the discharge can be started unless the patient has passed water immediately before. The appearance of the discharge resembles that of gonorrhœa in its various stages.

The treatment of acute urethritis, whether specific or not, may be conducted on the same principles as in gonorrhœa in the male, using the same constitutional remedies—local baths, etc. This will suffice in most cases of acute disease; but when it assumes the subacute form, or is chronic from the beginning, then the use of injections becomes necessary. Solutions of nitrate of silver, sulphate of zinc, and the like, will answer. You must bear in mind that the female urethra will not hold more than ten or fifteen drops, and if more is used it will enter the bladder, even where very slight force is used while injecting. I use a large syringe, placing the nozzle over—not into—the meatus, and inject slowly and without force a small quantity. When the case is of long standing, and the neck of the bladder appears to be involved also, I use a mild injection of one or two grains of nitrate of silver to the ounce, and inject it through the urethra with force enough to enter the bladder, and let it remain there, to be passed off when the patient urinates. In old cases which began by a severe acute attack, and where the walls of the urethra are very much thickened and the canal contracted, dilatation with bougies does much good. While the bougie is passed once or twice a week, I apply to the vaginal portion of the urethra oleate of mercury or the unguentum hydrargyri. This will often suffice to stop the gleety discharge, as well as remove the thickening of the urethra walls.

Another very troublesome affection of the urethra which results from urethritis, or may appear without any previous disease, is granular erosion, as it is called. The mucous membrane is covered with young, imperfectly developed epithelium; the papillæ are hypertrophied and extremely sensitive. This gives rise to the most excruciating pain during micturition, and generally keeps up a distressing tenesmus. This disease is fortunately not very common. Old people are most liable to suffer from it. The diagnosis is made from the history and appearance of the urethra. The treatment which is most reliable is, cauterization of the whole surface. The milder washes and injections do not accomplish much. Pure carbolic acid may be tried first, brushing it over the surface, and repeating it in eight or ten days. This is the least painful application, and answers in some cases. When it fails, solid nitrate of silver should be used; and when that does not suffice, nitric acid or the actual cautery may be employed. Better, perhaps, than these strong caustics, is to dilate the urethra so as to paralyze the muscles, and then touch it with carbolic acid.

Vascular tumor, caruncle, or wart of the meatus urinarius, is an affection which will come under your notice quite as often as any of the urethral diseases. These growths are located in the meatus, and generally on the lower side. They have the bright red and fungous appearance of mucous polypi, such as you may have seen in the nose, ear, or cervix uteri. Sometimes they are pedunculated, but more frequently sessile. They are very tender to the touch, causing the patient much distress when anything comes in contact with the diseased part. The chief trouble is the pain which they cause during micturition. They are easily diagnosticated, as a rule. The bright red color of the tumor or tumors—for there are often more than one—contrasted with the normal membrane around, makes detection easy.

The only thing likely to be confounded with them is prolapsus of the mucous membrane of the urethra. This rather rare affection can be distinguished from caruncle by the tumor extending uniformly all round the meatus, and presenting the usual appearance of a mucous membrane in a state of congestion and œdema. It can also, in some cases, be reduced when the patient is lying on the back.

The treatment of caruncle is to thoroughly remove the abnormal part. When they are pedunculated they can be clipped off, and the base touched with caustic to stop the bleeding and prevent regrowth. When they are sessile they should be destroyed by nitrate of silver, nitric acid, or chromic acid. To be able to apply the caustic to the abnormal part, and save the normal portion of the urethra, I have used a No. 10 or 12 gum catheter, having one side cut away. This I introduce into the urethra so as to bring the tumor into the notch of the catheter, and the caustic is then applied. Better still is the instrument recently described in the *Obstetrical Journal of Great Britain* by Mr. Thomas Bryant. It is something like an ear speculum cut away on one side, and answers as a "dilator, speculum, and protector." It is an improvement on the ordinary female urethral speculum.

I have already mentioned prolapse of the mucous membrane, and I need only say here that it is a rare affection, occurring in broken-down constitutions, where there has been pre-existing bladder or urethral disease. I base this statement on one case which came under my own observation. The appearance is that of a uniform, round, red tumor at the meatus, with the opening into the urethra in the centre of it. If possible it should be returned by pushing it back, and then using astringent washes to endeavor to keep it in position; but this, I learn, usually fails, and then removal of the prolapsed portion is necessary. The quickest and best way is to take it off by the galvano-cautery. When this is not at hand the actual cautery may be employed. The most prominent portions should be touched, which will cause sloughing; and the contraction which occurs during healing will dispose of the superabundant tissue.

I ought to mention polypus of the urethra, which is one of the rare troubles, and may be classed with vascular tumor and prolapsus. No difficulty will be experienced in the diagnosis and treatment of this disease when the tumor is situated at or near the meatus urinarius. When it is situated high up, it may escape notice in the ordinary examinations. When the symptoms point to the presence of such tumor, a small speculum should be used, or the instrument of Bryant already spoken of. When the polypus is detected it should be removed. To do this, however, it is necessary, as a rule, to dilate the urethra. This can be easily and safely done by using sounds or the improved Barnes' dilators.

Recently dilatation of the urethra has been practised very extensively. Dr. Noeggerath, of New York, has not only employed dilatation as a means of examining the urethra and bladder, but also for the purpose of admitting the finger to explore, by the touch, all the organs of the pelvis. He was not the first to dilate the female urethra—that had been done long ago—but he was the first, I think, who dilated it for the purpose of examining the pelvic organs. In the space of a few hours he has dilated the urethra sufficiently to admit the finger, and no very serious trouble followed, which is contrary to what we might have expected. This dilatation of the urethra for the purpose of examination, and also as a means of curing many of the urethral and bladder diseases, is one of the most important improvements in the management of this class of surgical affections. It is to the urinary organs what stretching the sphincter ani is to the surgery of the rectum.

I have only time to briefly notice urethrocele, and refer you to Dr. Bozeman's article on that subject in the *American Journal of Obstetrics* for February, 1871. In his paper you will find a more extended account of the subject than I can possibly give. The pathology given by Dr. Bozeman is as follows: First, the lower portion of the urethra becomes constricted, by infiltration of the tissues outside of the urethral mucous membrane. This causes dilatation of the urethra higher up; and at the same time the muscular coats increase in size. The result is, that the central portion of the urethra being distended, settles down, so that in time the urethra, in place of being a straight canal, becomes triangular, the upper portion being the base, and the central and lower portion (that is, midway between the neck of the bladder and the meatus) the apex. At this dependent portion a few drops of urine accumulate, which also increases the distention, and by its decomposition causes inflammation and ulceration. The urethrocele projects down into the introitus vulvæ, in the shape of a tumor, which may be mistaken for cystocele. In time the inflammatory affection of the urethra involves the bladder.

Among the causes mentioned are injuries during labor, over-exertion, excessive coition, congestion, and inflammation of the mucous membrane. The symptoms (after the disease which began the trouble has subsided) are first difficult, and finally painful and frequent urination. The diagnosis can be made from the history and the presence of a tumor in the introitus vulvæ, and the deflected condition of the urethra.

The treatment recommended by Dr. Bozeman is to tap the urethra at the most dependent portion. He proposes to make an opening through which the urine can pass, and leave it open until all inflammation has subsided—say one or many months—and then close it.

Regarding this disease I must say, that I have not seen many cases of it, or if I have, I failed to detect its true nature. One case I remember which corresponded to the history of urethrocele, and was no doubt a genuine specimen; but I recollect she got well under treatment, which consisted in dilating the urethra with sounds and washing it out frequently with a solution of nitrate of silver.

Finally, I will mention fistula of the urethra—not the ordinary opening which comes from injury and is described in text-books along with vesico-vaginal fistula, but blind internal fistula. The history of a case will perhaps answer better than a description. A lady had what appeared to be a cyst in the urethro-vaginal wall. Inflammatory action set in; and the pressure of the knife, used to open it in the vagina, caused an opening into the urethra at the same time. The wound in the vagina healed, but the opening in the urethra remained, and pus and urine accumulated in the sac, and a pretty constant discharge from the urethra continued. In another case of specific urethritis, followed by considerable thickening of the urethral wall, a sac or pocket was formed, which filled with pus and urine, and supplied a discharge which was almost as constant as an acute urethritis.

The treatment in both cases consisted simply of dilatation of the lower portion of the urethra with sounds, and washing out the urethra and sac with borax and water. The patients were also directed to make pressure upon the upper portion of the urethra, after urinating, to force out any urine that might lodge in the fistula or sac. One case recovered, and as the other did not return it may have ended in recovery also. In case this method should fail, I think it would be good treatment to make an opening into the sac from the vagina; *i.e.*, make a complete urethro-vaginal fistula, and afterwards close it by the usual operation.

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French Medical Night Service.—To remove the inconveniences and hardships attendant upon night service on the part of physicians, the prefect of police of Paris proposes to establish a service similar to the one existing in St. Petersburg. He recommends the following arrangement, which will necessitate an addition to the expenses of the city of a sum of about ten thousand francs only. In every quarter medical men will be invited to declare whether they are disposed to attend to requisitions addressed to them in the night. The names and domiciles of those who may be willing will be inscribed on an official list, posted in the police stations of the quarter. The person who may require a doctor will go to the neighboring police station, and will select from the list the name of the practitioner whom he desires. A police officer from the station will accompany him to the house of the medical man, will follow the latter to the house of the patient, and will, when the visit is over, reconduct him home. On leaving him he will give him an order on the police treasury for ten *francs.* According to the pecuniary position of the patient the administration will reclaim the fees paid, or will assume the cost of them.

The Quotation of Proper Names by French journals is proverbially inaccurate, but the obtuseness which converts the name of Professor John Hughes Bennett into that of M. le professeur Huebbenet is beyond comprehension.—Vide *Gazette Hebdomadaire*, of Oct. 29th.

Original Communications.

CASE OF BRONCHOCELE PRODUCING SUDDEN DEATH BY ASPHYXIA.

By ANDREW H. SMITH, M.D.,

OF NEW YORK.

Surgeon to the Throat Department of the Manhattan Eye and Ear Hospital, etc.

Margaret M., aged 16, was sent to me May 10, 1865, by Dr. Janvrin, at that time on duty at the institution of which she was an inmate. Her history was as follows: In August, 1874, at about the time when the catamenia were first established, she noticed that there was a slight enlargement of the throat. This continued to progress notwithstanding the use of iodine, locally and internally, until when I saw her the circumference of the neck was seventeen inches, and the tumor extended from the chin to the sternum, and from the external border of the sterno-mastoid muscle on one side to the same point on the other. She had had for some time an occasional husky cough, and had experienced slight shortness of breath on any occasion of unusual exertion. Menstruation regular.

On examining the tumor it was found to be nearly symmetrical, except that on the right side there was a lobe projecting forward, about the size of half an English walnut. Just above this, and at a point corresponding with the right ala of the thyroid cartilage, was a spot about an inch in diameter, softer than the rest of the growth, and presenting a fine thrill under the finger with each systole of the heart. The stethoscope placed at this point gave a loud blowing murmur, which was also audible, though less distinctly, over the whole tumor. The growth as a whole was rather soft, having about the resistance of a case of simple glandular hypertrophy.

The treatment consisted in the use of the galvano-puncture, which was employed about twice a week. From ten to twenty cells of a Drescher's constant battery were used, each sitting continuing about fifteen minutes. On several occasions the injection of half a drachm of tincture of iodine into the growth was substituted for the galvano-puncture. At the end of a month or six weeks the circumference of the neck was found to have diminished half an inch. At this time I went into the country, and did not see the patient again until September 22, when I was hastily summoned, and found her insensible from asphyxia. I learned from Dr. McQuesten, who was in charge of the case, that there had been a slight aggravation of the symptoms after the treatment was discontinued, but that they were not at all urgent until about an hour before I was called. The patient had had a slight cold, and going out into the cool fresh air of the yard she was seized with a fit of coughing, which in a moment became convulsive, and was accompanied by such extreme dyspnœa, that she sank to the ground and became unconscious. She was carried into the house, and laid upon the floor, and Dr. McQuesten was summoned. He came immediately and found her entirely unconscious, the face livid, and the breathing extremely labored. He placed the head in a position to favor respiration, drew the tongue forward, and applied ice to the tumor, with the hope of reducing its bulk by causing contraction of the vessels. But none of these measures were of any avail. The asphyxia became more and more pronounced, and a few minutes after my arrival, and a little more than an hour after the commencement of the attack, the patient expired.

It was observed that the moment the action of the heart ceased, the tumor, which before was tense, became flaccid, and seemed to lose considerably in bulk.

At the autopsy, which was made by Dr. McQuesten, the vessels of the neck were found greatly distended, and notwithstanding every care in the removal of the growth a very large amount of blood escaped. The capsule of the gland was found to be blended with the fibres of the sterno-thyroid muscles. The edges of the growth were overlapped slightly by the sterno-mastoid muscles, but not sufficiently to be a source of pressure. The isthmus of the thyroid gland was not hypertrophied to any considerable extent, but the lateral lobes were in contact with each other in the median line as accurately as the two hemispheres of the brain, a few fibres of loose cellular tissue passing from one to the other. Posteriorly, these lobes extended behind the trachea and œsophagus, completely embracing them and meeting each other in front of the spinal column. The trachea was very much compressed from side to side, and its area reduced at least one-half.

A histological examination of the growth was made by Dr. C. S. Bull, who found it to be of the form denominated by Virchow "struma gelatinosa vasculosa."

Viewing this case in the light thrown upon it by its unlooked-for termination and the result of the autopsy, let us see what lessons may be derived from it. In the first place, it shows that in a case of bronchocele which is marked by even the slightest degree of dyspnœa, this may on slight provocation be increased to the point of asphyxia. In this instance a smart attack of cough was sufficient to congest the vascular growth, which, compressing still more the already contracted windpipe, produced dyspnœa, and this in its turn aggravated the congestion. Thus a circle was established, the congestion increasing the dyspnœa, and the dyspnœa increasing the congestion. Unless this circle could be broken the death of the patient was inevitable.

The lesson from this is, that these cases should not be allowed to go on after there is evidence that the trachea is being narrowed. Shortness of breath on exertion should be the signal for efficient interference to procure a diminution of the tumor. Had the electrolytic treatment been continued in this case it would probably have effected this result. Injections of iodine would also promise well in a case of simple hypertrophy. But if these means did not yield a sufficiently prompt result, I should not hesitate to adopt a plan which I have long had in mind, and which is, to reflect the skin from the tumor at two or more points, and then thrust a galvano-cautery loop into the growth in various directions and leave the resulting tracks to suppurate. This would bring about a prompt reduction of volume, and, judging from the effect of setons, would probably in the end cause the absorption of the entire mass.

But after the asphyxia was developed could anything have been done for the relief of the patient? Division of the sterno-mastoids would have been of no avail, for the counter-pressure was evidently afforded by the deep cervical fascia.

To have divided this with sufficient freedom would probably, in the engorged condition of the vessels, have been attended by fatal hemorrhage; the more likely, as pressure could not have been applied to control the bleeding, without at the same time pressing on the trachea. If we could have known that the thyroid isthmus was not involved in the hypertrophy, it would perhaps have been possible, by tying the enlarged superficial veins which crossed the track of the incision, to have reached the trachea without excessive hemorrhage. But we could not know this, and the operation at best would have been a difficult and tedious one, for which there was not sufficient time.

But there is one thing which I regret that it did not occur to us to try, and that is venesection. It is possible that a very copious bleeding might have relieved, in some degree, the pressure upon the trachea; first, by the direct abstraction of blood from the tumor, and secondly, by weakening the hearts action, which was forcing the blood into the quasi-erectile tissue of the gland. The influence of this latter agency was shown by the subsidence of the tumor as soon as the heart's action ceased, but it was then too late to profit by the hint. In fact, it needed this evidence and that of the autopsy to show that the dyspnœa was wholly dependent upon congestion of the growth.

110 E. 38th St., *Nov.* 15, 1875.

SOME SUGGESTIONS ON THE TREATMENT OF INTERMITTENT FEVER.

By M. A. WILSON, M.D.,

NEW YORK.

While resident physician of St. John's Hospital, Cincinnati, O., in 1867–68, I became familiarized with the following simple plan of treatment of the malarial, intermittent and remittent fevers. I am not aware of it having ever been published, nor do I hesitate to say emphatically that it is much superior to any other mode of prescribing quinine, for the remedy is our same old sheet-anchor, only a little difference in the administration of it.

We will suppose the patient to have the first attack of ague; chill, followed by fever and sweating-stage, to take place, for instance, at three o'clock P.M. During the *sweating* stage of this paroxysm, not less than fifteen (better twenty) grains of quinine should be given to (an adult) in powder or solution, in preference to pill form, unless freshly prepared.

If the bowels and stomach are disordered, or any tendency to constipation exists, an active purgative, such as two or three pill. cathart. co., should be administered, either at once or at night.

Until the next paroxysm, which we will further suppose to occur on the second subsequent afternoon (tertian type), some such prescription as the following:

℞. Quiniæ sulph. . . . . ʒ ss.
Acid. sulph. aromat. (or dil.) . . . . ʒ i.
Syr. zingiberis. . . . . ℥ ss.
Aquæ cinnamom. ad. . . . . ℥ iij.
M.

S.—A dessert-spoonful every three or four hours.

Before the next expected paroxysm, this prescription (twelve doses) will probably have all been taken, and very frequently this treatment is sufficient, there being no further "chills;" but, not knowing positively whether there will or not, it is advisable to anticipate, and give, *one hour* before the next expected attack (which, in our supposed case, would be about 2 P.M., forty-eight hours after the first attack), not less than ten, preferably fifteen, grains more of quinine.

This amount (the first dose of twenty, in the prescription or mixture thirty, and the last dose of fifteen, making in all sixty-five grains), in the majority of cases most generally completely and permanently "cures" the patient, who may never again suffer from ague, unless peculiarly and constantly exposed to malarial influences.

This we cannot say is the result obtained by any means through the ordinary mode of prescribing quinine, viz., two or three grain pills, three or four times daily; this mode of administration merely sufficing to check the disease for two, three, or more weeks after the patient ceases to take it.

Even after such small doses have been taken for weeks at a time, the "chills" invariably recur (there being a longer or shorter interval of time) until the patient is discouraged, despondent, exhausted, suffering from all the horrors of what is commonly called "dumb-ague," and willing to buy and try any patent nostrum.

I do not wish to be too positive, but I do not *think* that I have ever treated the *same* patient a *second* time for malarial poisoning, after the adoption of this method of treatment, although I wish to be understood as referring chiefly to recent attacks, "acute" ague—when it first begins, or as near that time as possible.

The great difficulty in chronic cases, the dumb-ague, is to ascertain the times of the paroxysms, as they seem to occur irregularly, *any* time, and the case is "mixed;" so that we can scarcely decide when to give these full, definite doses.

Besides, so much quinine has been already administered in long-continued small doses, many of these patients more or less constantly experiencing its peculiar cerebral effects, that a further amount is useless; the time has passed for trial of the above-mentioned plan, and we must prescribe other remedies.

Owing to the cachexia and debility, I usually continue the use of a small quantity, say five grains daily, in conjunction with iron, as well as the vegetable bitters, mineral acids, etc., according to, and as long as the indications may warrant the use of tonics.

In chronic malarial poisoning, after quinine has been thoroughly and fully tested, we must treat our patients somewhat empirically, and employ such remedies as are termed blood-depurants.

The various alkaline or other diuretics, cholagogues, as calomel in minute doses, blue mass, podophyllin, ipecac, conium, taraxacum, combining some of the latter drugs with arsenic, nux-vomica or strychnia, belladonna, aloes, gentian, etc.

Among other anti-periodics, I may mention piperin, which is much valued by many practitioners, sulphate of beberia (this being at present, however, rather discarded); and my esteemed friend, Prof. M. A. Pallen, M.D., of this city, speaks most highly of the picrate or carbo-zotate of ammonia, one-third grain doses, combined with quinine, in pill form.

As the details of an attack of ague are not sufficiently interesting to occupy much time or space, I will merely mention one case from my note-book, which occurred sufficiently long ago to warrant us in believing it to be "cured."

In April, 1872, I was called to see Major B., a gentleman who had suffered from an attack (first one) of ague six weeks previously, in Galveston, Texas.

The physician there had prescribed sugar-coated, two-grain quinine pills, one four times daily, which had been taken for about a week.

Leaving that city during the following week, he had just arrived in New York when another paroxysm came on.

When I saw him, Friday, 2 P.M., he was in the first (cold) stage, and I prescribed nothing for *immediate* use whatever, but ordered twenty grains of quinine to be taken during the sweating stage, and ten grains of blue-mass at bed-time, followed with a bottle of citrate of magnesia next morning. This being of the tertian type, and as the next chill was expected on the following Sunday P.M., I prescribed the mixture as detailed above, to be taken during the interval, and fifteen grains more for Sunday, 1 P.M., anticipating the attack one hour. On Sunday *at no time* did he experience any symptoms whatever of a return of his "ague-fit," but still he took the last dose.

Since that time, now more than three years, he has travelled far and in all directions, and has been much exposed to the influence of malaria, but he has never suffered in the slightest, nor had any symptoms of ague.

Without doubt the amount of quinine he had taken before I saw him was of material benefit and assistance in the cure; but what I wish especially to refer to is not the *amount* so much as the *mode* and *time* of taking the antidote.

Had he in his second attack (the one for which I treated him) again begun the use of the "two-grain pills," temporary benefit would have resulted. But the controlling influence of the quinine taken in this manner would not have been sufficiently great to have prevented the recurrence of several subsequent attacks, each one probably lighter or of briefer duration, until, owing to its constant use for several weeks, sufficient had been taken, and the paroxysms would again temporarily cease.

The patient, now somewhat relieved, and weary of medication, would most likely put all aside entirely, until, after a variable lapse of time, his old enemy, "the chills," would again be upon him. Thus, in this irregular, discouraging manner, these attacks would recur again and again, when sooner or later quinine would entirely lose its controlling power (if in fact it was exercising *any* influence in such a case), and the patient be "only one more" miserable case of chronic ague; constantly suffering from slight chills, transient fever, headaches without cause (at least unrecognized by him), more or less nausea, pains in the head and back, with anorexia, lassitude, low spirits, etc.; broken down in mind and body, saturated with malaria, and the "antidote" (as I believe it to be when properly used) no longer of benefit.

This slight description is not overdrawn; it could be lengthened: and yet, as well as I can ascertain, my professional brethren almost universally treat malarial fever with quinine in small doses (one, two, or three grains several times daily), continued a longer or shorter time; whereas, if two or three (sometimes one is sufficient) *full* doses were administered (the first during sweating stage when that is pronounced, owing to the greater rapidity in the absorption and consequent effect of the remedy), combined *with* the usual mode of small doses frequently, as in above-described mixture, these ague cases would have but a brief existence, merely because the quinine is then employed *as* an antidote, enough given *at once* to promptly overwhelm and overpower the poison, as we would in any other case of poisoning; as in the free use of hydrated peroxide of iron in arsenical poisoning.

No. 12 E. 28th Street, N. Y. City.

A Montreal Doctor has just sued his landlord for twenty thousand dollars damages for illness caused, he alleges, by the unhealthiness of the house in which he resides.

Progress of Medical Science.

Progressive Pernicious Anæmia.—The last number of the *American Journal of the Medical Sciences* contains a long article on the above interesting disease, by Professor William Pepper. The paper is rendered especially interesting by an endeavor to intimately associate several of those diseases which depend upon defective blood-development, and which have been variously denominated as idiopathic, essential or malignant anæmia, or grave forms of chlorosis, leukæmia, pseudo-leukæmia, adenia, lymphadenoma, or Hodgkin's disease, and progressive pernicious anæmia. The name progressive pernicious anæmia was first applied by Biermer, of Zurich, to a peculiar form of anæmia which began insidiously without any distinctly assignable cause, and gradually progressed to a fatal termination. The disease was characterized by diminution of the red globules of the blood without increase of the white corpuscles, and was accompanied with pallor of the surface, but slight or no emaciation, failure of the heart's action, with anæmic murmurs and passive dropsy. Late in the course of the disease ecchymoses appeared occasionally underneath the skin or in the retina, with hemorrhages from the nose or kidneys. There was no affection of the spleen or lymphatic glands. The only organic lesion found post-mortem was fatty degeneration of the heart and of various other organs. Biermer wrote under the impression that he was describing a new disease, and this impression would appear to have been generally entertained. Pepper, however, has collected a number of cases which had been previously recorded, which he regards as relating to precisely the same disease as that described by Biermer, and indicate, as he thinks, that the affection is less rare than has been supposed. It is claimed, indeed, that the same disease was clearly delineated by Addison, and that it was the study of this affection which he described under the name of idiopathic anæmia, which led him to investigate that other form of anæmia which is associated with bronzing of the skin.

Furthermore, it is claimed that this idiopathic or progressive pernicious form of anæmia differs from the disease known as pseudo-leukæmia only in the fact, that the latter disease is associated with lesions of the organs supposed to be connected with the formation of the blood—the spleen, the lymphatic glands, and the medulla of the bones. At about the same time that Addison's investigations were made, Virchow and Bennett called attention to leukocythæmia or leukæmia—a disease marked by great increase of the white corpuscles of the blood, together with a diminution of the red globules. Three varieties of this disease were described, according as the chief lesion existed in the spleen, lymphatic glands, or marrow of the bones, viz., splenic leukæmia, lymphatic leukæmia, and medullary leukæmia. Subsequently a form of cachectic anæmia was described, in which similar lesions were found, but without increase of the white corpuscles. In contradistinction to the above, therefore, this disease was known as splenic, lymphatic, or medullary *pseudo-leukæmia*.

Now, inasmuch as all of these forms of disease evidently depend upon some defect in the blood proper, and are essentially due rather to the absence or destruction of the red globules than to the increase of the white corpuscles, it is proposed to class them altogether under one general term, and for this the writer suggests the word *anæmatosis.* Instead of regarding leukæmia as the type of these diseases, he prefers to consider the increase of the white corpuscles as rather an accidental or non-essential condition, the presence of which may be expressed if desired by the prefix "*leucocytic.*"

Full reports of three cases of progressive pernicious anæmia are communicated, and afterwards the various points connected with the etiology, course, pathology and treatment of the disease are discussed in detail. In the third case related by Pepper the autopsy revealed very interesting changes in the medulla of the bones, which consisted in extreme hyperplasia of the marrow with production of lymphoid cells, and corresponded to the condition described by Herrmann, Ponfick, Mosler, and others as found in some cases of leukæmia. In view of this case the writer inclines to the opinion that idiopathic or progressive anæmia is identical with the medullary form of pseudo-leukæmia.

The article closes with the following conclusions:

1. Progressive pernicious anæmia is identical with the idiopathic anæmia of Addison, and is in no sense a new disease.
2. It is in reality the medullary form of so-called pseudo-leukæmia.
3. As the primary and essential lesion in this and the analogous conditions (leukæmia and pseudo-leukæmia) appears to be an affection of the chief blood-making tissues—spleen, lymphatic glands, marrow of the bones—causing defective elaboration of the blood, it seems proper to select some name that will indicate this fact, as *anæmatosis.*
4. The changes in the blood consist of great reduction in its mass, with extreme diminution in the proportion of red globules, without increase in the white corpuscles. There are probably also changes in the vital properties both of the red and white corpuscles.
5. The other lesions, chiefly fatty degeneration of the heart and other organs, passive effusions and hemorrhages, are secondary, and depend upon the blood changes.
6. The symptoms are explicable, in great part, by the state of the blood and the condition of the heart.
7. The disease, when once fully established, appears to be invariably fatal.
8. The remedies which appear to afford most prospect of relief, are cod-liver oil, arsenic, and phosphorus.
9. Transfusion is only capable of doing temporary good.
10. This operation is not free from grave danger, owing to the feebleness of the heart and the small amount of blood in the vessels; and, in order to be safely employed the amount of blood injected must be very small (f. ℥ iii.), it must be introduced slowly, and the operation must be repeated at suitable intervals. It adds to the safety of the operation to inject the blood into a small artery instead of a vein.

Syphilitic Chancres of the Breast.—Dr. R. W. Taylor reports three cases of primary syphilitic affections of the breast, giving a minute description of the peculiar appearances of the initial lesion in this situation. The three cases represent the three varieties of syphilitic chancre of the breast described by Fournier. These varieties are the indurated fissure, the ecthymatous form, and the superficial erosion. In Taylor's first case there were several indurated fissures about the nipple, all of them having elevated pinkish-gray edges, with a deep sulcus between of a deeper reddish color, from which a thin, scanty secretion was exuded. The ulcers were exceedingly sensitive, and when pinched between thumb and forefinger a dense induration was perceived. In this case the indurated pectoral and axillary glands could be distinctly felt, though Taylor observes that where lactation has been prolonged, and the breasts are flabby, the condition of the pectoral glands may be obscured by the presence of thickened lactiferous ducts and localized hard spots of adenoid tissue.

In the second case a thin brownish-green crust appeared, which was loosely adherent, and when removed revealed a shining grayish-pink ulcerated surface of great smoothness. The edges were not elevated, but when the tissues beneath the ulcer were pinched between the fingers a distinct induration was felt, and the peculiar blanching of the tissues, often observed in hard chancres, was produced. The encrusted condition of the ulcer was ascribed to the fact that the mother did not nurse her child upon that side.

The last case—the instance of superficial erosion—was characterized by the appearance of several excoriated spots, the largest being about a line and a half in diameter, which were slightly elevated above the surrounding surface, were perfectly smooth, and showed no sign of granulations. The margins were sharply defined. The secretion was scanty and serous. "The appearance was precisely as if, owing to hyperæmia, the very superficial layers of epidermis had been cast off, and the affected tissues slightly elevated." The syphilitic infiltration seemed very scanty and superficial, and the induration was inappreciable. In other instances of this variety of chancre the writer had observed more marked induration.—*Archives of Dermatology*, October, 1875.

Angina Pectoris.—Dr. Hamilton Osgood, of Philadelphia, contributes a paper on "Angina Pectoris," to the last number (October) of the *American Journal of the Medical Sciences*, with detailed reports of five cases of the disease, together with copious references to the literature of the subject. The writer regards the disease as a neuralgia, which is not necessarily dependent upon cardiac disease, and is not, as maintained by many writers, confined to middle and advanced age. O. is inclined to embrace the view of Laennec, viz., that the neuralgia may originate in different nerves, and yet give rise to the same train of symptoms. Thus the original seat of the disease may be in the pneumogastric, or the cardiac portion of the sympathetic, and the brachial plexus become implicated secondarily, by sympathy. It is thought that, when the affection is associated with organic disease of the heart, it should be regarded rather in the light of a mere coincidence, than as properly a symptom of cardiac disease. The existence of pseudo or simulative attacks of angina is denied. It is supposed, with Romberg, that hysteria may give rise to true neuroses, among which is angina pectoris. Attention is called to a symptom of angina, not hitherto described, namely, an inequality of the radial pulses in the two arms. During the paroxysm, and, indeed, in some cases, as a premonitory sign of its advent, Osgood has observed that the left radial was markedly smaller than the right,—indicative, it is supposed, of increased arterial tension on the affected side. The remedy on which the writer mainly relies is the nitrite of amyl. He begins with one or two drops, and increases the dose gradually till a flushing of the nose is produced. Guided by this symptom of its action, he believes the remedy may be used with perfect safety. As a rule he has found it unnecessary to exceed eight drops; but in one case as much as a drachm was administered before the desired effect was obtained.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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HOSPITAL MANAGEMENT.

THE question of hospital management in this city, especially that phase of it which relates to the relative rights of managers and the medical staff, has been receiving a very animated discussion. What has been styled the Presbyterian Hospital affair has been the pivot around which most, if not all, of the interest in the subject has revolved. From this apparently insignificant starting-point—from the mere failure to re-elect four gentlemen of the medical staff—from what at first appeared to be a private affair with the board of managers—the matter has magnified itself into one of principle, and has assumed such proportions that a mass meeting of the profession has been held for the purpose of giving a public expression of opinion.

It has been our aim from the very commencement of this trouble to give both parties a fair hearing, and to found our conclusions upon the bare facts presented. We believe that the greater part of the testimony is before the jury of public opinion, and the case, so far as it can be presented, is ready for a verdict.

As far as we can judge, both parties still maintain their original attitude. The Board of Managers of the Hospital maintains its right to drop any member of the medical staff it sees fit, without showing cause, and a goodly majority of the profession deny this right. In one sense both parties are right, and both are wrong. As often happens under such circumstances, there is some middle ground of opinion upon which differences can be compromised respective rights adjusted, and proper preparations made for unprejudiced judgment. The more we run into extremes, the farther do we stray from the truth, and less likely are we to mete out strict justice. Ill-tempered speeches, fiery denunciations, and unmanly vituperations are not always the best means to expose error, force conviction, or bring about repentance; neither is dignified silence, an apparent indifference to public opinion, and a studied refusal to explain the cause of action the best means to answer argument. The defiantly belligerent attitude of both parties is to be deplored, if for no other reason than that it has prompted the utterance of threats to each other, which, if they are not shameful, are at least puerile. The extremists on one side threaten to break up the hospital, to force medical men to resign their positions therein; and the extremists on the other side connive to destroy the chances of any who have already resigned, or who may in future resign, from the hospital in question, for any other similar appointment in the city. If this is the way to discuss a principle, a new system of logic is needed.

How can we get at the right of the matter? Probably in no better way than by studying the facts of the situation, and examining the claims of each party in the strife. In the first place the managers have the undoubted right to nominate whom they please for the office of medical attendant. If this is denied, then we are at a loss to determine how any of the staff gained their positions at all. The very fact of holding such positions is an acknowledgment of this right. If there is any doubt in regard to the free exercise of this prerogative on the part of the appointing power, the medical profession as a whole are very much to blame for it. The history of the struggles for hospital appointment, on the part of the medical men, carries such a conviction on its very face. In view of the existing system of hospital appointment, the hope of any radical change in regard to it seems a long way off.

In the next place, the managers claim the right to decline to re-elect any one or more of those who have already served the hospital. This is hardly open to question, in view of a by-law upon the subject to which each member of the medical staff is supposed to subscribe. So far, then, the case seems clear enough. The board has by such means ample powers for self-protection, in fact it has everything in its own hands, to do what, according to its interpretation, is "for the best interests of the hospital." This being the case, it becomes them to use extraordinary discretion in their rulings; in fact, knowing that they have an absolute power, if they are capable of erring at all, the error should be on the side of mercy, if not on that of justice. They certainly can lose nothing by giving their dependants the benefit of a reasonable doubt. In the present instance, as any one can see, a grievous mistake has been made. Instead of being magnanimous, the majority of the board has been stupidly intolerant, and has laid itself open to the criticism of all fair-minded men. The members exercised their right, it is true; but they did it in a peculiarly offensive way to the profession—by refusing to give any other reason than that of a mere whim. In fact, it is authoritatively asserted that no charges were brought against any of the gentlemen deposed, and while going farther and asserting that they are in their opinion capable men for the positions, they fail to re-elect them. This, to say the least is quite an original way of proving their fitness to judge concerning what should be the real interests of the institution which they assume to control. The gentlemen of the staff who were thus deposed have a perfect right to protest against such a course, and on a question of principle the profession is right in upholding them. As far as we can learn, this protest was respectful in its tone, and was entitled to a respectful answer. If the latter had been vouchsafed, all would have been well. Instead of that, however, it would seem that the board chose to hide its wrong-doing behind the cloak of its official dignity.

We have always believed, and still believe, that the board should have given these gentlemen some reason for the course adopted. It is true no by-law compelled them so to do, but ordinary courtesy had, if possible, a still higher claim upon them. There would have been no violation of any by-law in asking these gentlemen to resign before the election, and giving the reasons, if they had any, for such a request. But, as every one knows, this was not done. If there was any disagreement in regard to the administration of hospital affairs, as has been intimated by one of our correspondents, this was a matter very easily settled. In fact, the whole profession would be interested in the solution of the question of the relative authority of executive officer and medical attendant. This is still a problem in hospital management, and the managers of the Presbyterian might have given themselves the opportunity of solving it for all time, and establishing a brilliant precedent.

The excuse for the action of the managers which has been offered by our correspondent in the present number is one which the medical profession will hardly accept. Any and every medical board has a right to elect its own presiding officer, and if it be true that because this board did not elect the President chosen for it by the benefactor of the hospital, then the excuse for deposing the independent voters is worse than the act itself.

The mass meeting of the profession which took place on the 30th ult., and to which allusion has already been made, was in every way a success. The proceedings throughout were dignified and calm, and cannot fail to carry with them the full weight of influence desired. The resolutions which were adopted, and which we publish elsewhere, were temperate in the extreme, and not only reflect credit upon the discretion of those who framed them, but unequivocally set forth the justice of the principles which they advocate. We do not see how any unprejudiced medical man can fail to endorse them.

No one can suppose for a moment that the board had not some reasons for dropping four of the staff; but why, under existing circumstances, they do not see fit to explain such reasons, it is certainly very difficult to understand. Their persistence in refusing forces the conviction that they either intend to outrage all notions of even ordinary justice, or else are fearful that their method of managing the hospital will not bear honest scrutiny. The sensitiveness concerning professional pressure is of itself a confession of weakness. This was quite manifest at the recent meeting of the board, when a committee appointed for the purpose of investigating the matter reported in favor of reinstating the four medical men who had been dropped. Not only was the report not received, but the members of the committee were rebuked so soundly for their convictions, that they at once resigned all connection with the board. As a result of a misunderstanding of what constitutes the justice of giving a reason for virtually dismissing four gentlemen from the medical staff, five members of the said staff and five members of the board of managers have resigned; and yet the board as a whole still maintains its dignified silence. On this point of issue it was time for the profession to express an opinion, and it is a matter of congratulation that it has been done so thoroughly and so satisfactorily in the resolutions adopted at the mass meeting in question. It is hardly to be expected, under the existing circumstances, that the managers will take any more notice of the protest than it has of former ones of similar import; but they take their own responsibility in ignoring what every one else would consider the reasonable claims of fair play. With them the matter may rest where it is, but with other boards of management the expression of professional opinion in regard to the rights of medical men will doubtless be heeded. If such be the case, the discussion of the Presbyterian Hospital affair will not be in vain.

The suggestion in the resolutions regarding medical representation in the board of managers, it is perhaps needless for us to say, in view of what we have already written upon the subject, meets our hearty approval.

SUBSTITUTES FOR PATENT MEDICINES.

Our correspondent from Portsmouth, in referring to the relations between physicians and pharmacists, very properly condemns the patent-medicine trade. The remedy which he proposes, however, is not much better than the disease. It would certainly be better to substitute harmless articles for the questionable compounds which make up the quack nostrums, but why is it necessary to use any of these medicines at all? Is it not opening a wide door for fraudulent dealing with the medical profession, by giving counter-prescribing an air of respectability which it does not deserve? In our opinion there should be no compromise with quackery in any shape. The pharmacist should make it a matter of principle to discourage the use of nostrums by every means. This he can never do, if he attempts to meet deception on the middle ground of an expediency, to compromise with quackery in the attempt to improve upon it. The apothecary can always be safe in warning every one against the use of patent medicines at all times, to all men, and under all circumstances. By so doing he performs a conscientious duty to himself, discharges an obligation which he owes his customer, and deals justly with the medical profession. We hope that the druggists are ready for this question.

THE MEDICAL CENTENNIAL.

We are glad to learn that there is prospect of hearty co-operation, on the part of representative men of the profession in this city, in the plans for the International Medical Congress at Philadelphia in 1876. We have earnestly advocated the desirability of such a conjunction of forces to accomplish so happy a result, and have a satisfaction in the consciousness that we may have aided, even in slight degree, to foment this kindly feeling by pointing out to the profession, here and elsewhere, how necessary it is that Philadelphia, the recognized centre of Centennial entertainment, shall be properly seconded in her well-devised programme.

Reports of Societies.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, November 12, 1873.

Dr. E. R. Peaslee, President, in the Chair.

ON CERTAIN POINTS CONNECTED WITH THE NERVOUS SYSTEM OF CHILDREN.

The topic selected by Dr. Jacobi for consideration, under this heading, was the relation that exists between the sexual organs of children, both male and female, and the nervous system, but especially with reference to reflex movements, and paralysis from genital irritation. This subject is not entirely new, but has been brought into special notice of late by the reports of cases by Drs. Sayre, Otis, and others. Both American and European writers have, some years since, alluded to the unexpected influence which abnormal conditions of the sexual organs may have upon the whole nervous system; such as the reflex neuralgias of various names. It should also be stated that whenever debility or other general influence, acting in any part of the body, so as to produce an effect upon the system, we should expect less of unilateral paralysis than symptoms of a general character. For example, irritation in the small intestines of children does not develop, as a rule, unilateral disturbances, but the symptoms will be rather those of general convulsions.

There can be no doubt but that irritations about the genital organs of children have a wide-spread influence; but the question is whether, in all the cases reported in our journals as illustrations of the effect of irritation of the sexual organs, this irritation as such explains all the symptoms. Reference was made to the case reported by Dr. J. H. Hunt, in The Medical Record for Oct. 16, 1875, as one of the cases of paralysis due to *nothing else except adherent prepuce*, and the so-called irritation dependent thereon. To what extent this is true in the case referred to, cannot be shown from the language of the article itself; and a number of these cases which have been reported as those of reflex irritation and paralysis, dependent upon similar causes, adherent prepuce, etc., are of the same indefinite character. One of the defective points in these histories is the neglect to mention anything concerning the habits of the children. Absolutely nothing has been said as to whether, in consequence of the irritation of the glans penis, masturbation was present or absent.

It was to this subject—the effects produced upon the nervous system of children by the habit of masturbation—that the doctor directed the attention of the Association.

Before doing so he remarked, that the question of paralysis dependent upon irritation of the glans penis and irritation of the genito-urinary organs in general, is now less settled than ever. It is a peculiar fact that a large number of these cases which have been mentioned in older and more modern literature have to do with irritations and diseases of the genital organs, but just in this field of investigation it has been shown that there is no reflex disease in the question. Post-mortem in a large number of these cases has shown that they were not reflex cases, but that they were the result of disease creeping upward, along the nerves of the spinal cord, and are cases of extensive neuritis or even myelitis. Thus in all these cases, and the number is not small, it must be stated that what has been taken as reflex paralysis was evidently the direct result of inflammatory processes in the spinal cord. Probably in a large number of the cases which have been reported as reflex, there is more or less general or a localized myelitis, and there is behind this, as a cause, masturbation. The results of masturbation in the adult are sufficiently well known and require no further mention in this connection. The results of the habit are the same in infancy and childhood as in the adult, and the habit is not an infrequent one. The doctor remarked that he had had opportunities to see children, both male and female, engaged in the habit, and has had the reports of mothers and attendants who have observed the fact as soon as their attention had been drawn in that direction.

The attacks, for they may be called so, of masturbation will be frequently repeated in the following manner:

A boy or girl at play on the floor; they usually prefer the hard floor, and sometimes will select it in preference to a soft cushion or mattress. All at once they get quiet, cross the thighs, look a little pale in the face, soon become flushed, start up, remain a little immovable, eyes start now and then; they become flushed and excited, and afterwards exhausted. Such attacks have been reported to him as occurring a number of times during the day. A number of cases have been reported to him where the children were closely watched, and seen playing with the genital organs, especially boys while in bed; and not only play with the penis, but finally erect it, and at last succeed in squeezing a small amount of liquid from the orifice of the urethra; and that this occurred just at the time the face became flushed and the eyes started in their sockets. The results of this habit in children are about the same as in the adult, as far as the languor and general irritability of the nervous system are concerned. Such children are irritable, frequently a little bloated; have that peculiar shyness which is present in adults when addicted to the habit; have a peculiarly sallow skin, and the sebaceous follicles are exceedingly well developed.

The sebaceous follicles in the skin of the infant are very large, and when about one year old they get smaller, but when this habit is contracted these follicles remain enlarged, especially about the face. Probably a great many of the comedones seen upon the face of adults are the result of masturbation. Not all examples of this condition are due to this cause, but whenever such a face is seen it reminds one of masturbation, and probably in very many instances they are due to the influence of this habit. In boys affected by such habits erection of the penis, especially in the beginning, is a very common symptom. Now and then a case will be found which may be recognized by a simple inspection of the penis. When the habit has been continued for some time the glans becomes enlarged, looks irritated, is reddened, and the prepuce is swollen. It has been stated that the same condition is sometimes seen about the genitals of girls, perhaps more frequently than in boys, and that there is a free secretion from the Bartholine glands and muciparous follicles about the orifice of the urethra. The labia majora also will be very large, and the clitoris is almost invariably enlarged. It is said that there is a peculiar redness of the passages which can be easily diagnosticated from the redness of the mucous membrane of the vagina, which is so frequently seen in the cases of leucorrhœa occurring in small children.

What is the cause of masturbation in little children? The cause is always an irritation, and this may be absolutely external, or it may be internal. External irritation is illustrated by direct irritation of the genital organs, especially of boys, by nurses and servants.

In this way the habit is contracted, and in them continued. Another external irritation in boys of eight or ten years of age, is horseback riding.

Sleeping in hot feather beds and sitting upon soft-cushioned sofas is another external irritation. Another cause, unless great care is taken, is placing boys in pantaloons too early. The doctor brought this forward as a cause, for several reasons, namely:

Previous to wearing them the genital organs were kept cool, but the pantaloons press the organs to one side and thus they are kept overheated. In addition, the sudoriparous glands in that region are more or less stimulated, and sometimes considerable moisture is generated. Moreover, when the child desires to urinate, it frequently takes him a long time to get the penis into proper position, and not unfrequently he will be assisted by willing playmates in so doing. All these things it was believed had much to do with establishing the habit, and it occurs in this way much more frequently than most of us are aware.

There are local irritations which are the result of anomalous development. In Dr. Hunt's article adherent prepuce was the ascribed cause of the paralysis. In determining to what extent such effect follows such a cause, it should be stated that in fœtal life the prepuce is very adherent to the glans penis. A large number of new-born children exhibit a continuation of the adherent prepuce. As long as it is adherent uniformly for one-fourth or one-third its entire extent, it is probable that no harm will follow. But in those cases where the agglutination is prolonged and pouches are formed behind such adhesion, where copious collections of smegma may occur and get rancid, and urine collect and get acid, a local irritation of the glans penis will result, and give rise to repeated attempts on the part of the little sufferer to get rid of the irritation by pulling at the organ, and in this way the habit of masturbation may be contracted. The same thing may be said with regard to the vaginal canal, when as a local irritation we have a leucorrheal discharge, which is of such frequent occurrence in little girls. It is the irritation behind the leucorrhœa that gives rise to the habit. An occasional source of local irritation is worms in the rectum. Exposure to cold, as sitting upon cold stoops, and the use of coarse sponges or coarse towels, are additional sources of external irritation. Catarrh of the bladder, and calculi in the bladder, ureter and kidney, were mentioned among the sources of irritation. The doctor had found out of forty autopsies in children, six cases in which renal calculi were present. This was not regarded as anything like the truthful ratio; but probably it can be said with truthfulness that in six out of a thousand cases renal calculi will be found in children. There is a large number of medicinal agents which have the power of producing considerable irritation upon the kidney, and when being administered the irritating effects of these drugs should be carefully watched. Notable among these drugs are nitrate of potash and chlorate of potassa, especially the latter. This is a remedy much in use, and it can be easily proved that the kidneys, more than the stomach, will be the first to suffer from the detrimental influences of the drug. When large doses are given, congestion of the stomach and kidney will be produced. A single large dose of chlorate of potash has produced a diffused nephritis, and death from uræmia. In this connection the doctor referred to a case in his own practice, where one ounce of *chlorate of soda* was taken, and the patient died from uræmia. What shall be done for the children, as far as masturbation is concerned?

They are irresponsible, and must be controlled and frequently forced. Circumcision is absolutely essential. Whether the symptoms are cured from the fact that the phimosis which required it is relieved, or whether it arises from the fact that the children are cured of masturbation, is a question. Sometimes it is simply a constipation that causes irritation of the genital organs in children. Constipation in the adult may be the cause of seminal emissions, and very frequently is an important factor in the treatment of such cases. In like manner it must be carefully guarded against in children.

These children should be well employed. They should not be placed in bed until the time arrives for them to go to sleep; and they should be taken up early in the morning, put in a bath, afterwards dressed, and set to work at once.

Can remedies do anything in the treatment of this habit?

Bromide of potassium is serviceable in preventing children from masturbating during the intervals of sleep, and also to procure sleep. Alkalies may be used to the extent of relieving what little catarrh of the bladder may be present. To diminish the general irritability of the parts, lupuline and camphor are of service. Strychnia will be beneficial in many cases, as it is a generally useful remedy in all forms of nervous disease caused by masturbation, either general or local in character; and marked either by symptoms of partial paralysis or symptoms of irritation.

Hypochondria, when it occurs in children, was believed always to be due to masturbation. Epilepsy and chorea have been produced by the habit. Local symptoms of debility are essentially those of more or less localized paralysis. Symptoms of local irritation are much more frequent. A peculiar *hysterical cough*, such as heard in hysterical females, is occasionally heard among boys and girls, and in a large number of cases can be traced to masturbation as the cause. The doctor then related two cases, both occurring in *boys*, in whom the hysterical cough was a prominent symptom. *Hemicrania* was mentioned as a disease not infrequently found in children 8 or 9 years of age, as well developed as in the adult, and produced by self-abuse. Iron and belladonna are serviceable in the treatment of this symptom.

Another symptom found occasionally in children 6 or 7 years of age is *neuralgia about the joints*. This is much more frequent than has been observed in former years. The knee-joint is very frequently involved, especially the internal condyle of the femur; also the styloid process of the ulna, and very frequently the vertebral column. Excessive masturbation is the cause not infrequently in these cases. Some say that spinal congestion is present; others, that the condition in the spinal canal is one of anæmia; others, that it is a neuralgia of the skin, bones, and periosteum, etc., etc. Strychnia was recommended in these cases of so-called spinal irritation, not so much with the view of overcoming the anæmia as for its stimulant effect upon the nervous centres.

Hysterical paralysis was mentioned as occurring in children from 5 to 10 years of age, and the case of a girl of about that age recited. The universal paralysis would pass off in the course of a day or two, and the patient would then feel as well as ever. In this instance there was a history of masturbation extending over several years. Dr. Jacobi then referred to cases reported by different authors of the occurrence of hysteria in children.

Dr. A. C. Post mentioned a case in which marked hysteria manifested itself in a girl aged 9 years, and in whom the passage of large quantities of limpid urine was a prominent symptom.

Dr. Jacobi mentioned a case of orgastic spasm that had been brought to him as a case of epilepsy. In some of these cases it requires the greatest care and caution to find out what their true nature is, and to determine whether masturbation is present.

Dr. Leaming mentioned incontinence of urine as a symptom in children given to masturbation. In some of these cases the application of caustic to the prepuce and clitoris, just sufficient to make them a little tender, had been attended with much benefit. In the asylum with which he is connected, it had also been observed that a change from a stimulating animal food, beef and mutton, had been followed by good results, and that by so doing the habit was more easily managed. The habit has been found to be excessive among the children, and when one bad child is admitted, it requires the closest watching to prevent its spread among the other children. The habit of wetting the bed and clothes has been broken up in the institution by watching the children, and breaking up the habit of masturbation. These were children from 2 to 7 years of age.

Dr. Peaslee remarked, that with regard to irritations of the glans penis by adherent prepuce in young boys, there is a very important distinction to be borne in mind. If it be the fact that such adherent prepuce together with the accumulated smegma within the prepuce and around the glans, is not sufficient to produce the symptoms referred to *without* the masturbation, it is important to be determined, for in such case the operation of circumcision is not sufficient to effect a cure. On the other hand, if that state of things will induce the habit of masturbation, it is also important to be determined. But in either case the child is not cured by the operation.

Dr. Gibney inquired how long after birth the phimotic condition present in fœtal life remained?

Dr. Jacobi replied that it may remain for months and sometimes for years. In a very large percentage of those circumcised, the operator is obliged to tear a portion of the prepuce from the glans penis.

When the agglutination is simply epithelial, it will remove itself usually within a few months or at most within a few years. But some cases are more than this, and are real instances of agglutination.

Dr. Messenger regarded the question of the use of feather beds and cushioned chairs as one of importance, and too much overlooked in the management of children. Their influence is detrimental.

Correspondence.

THE PRESBYTERIAN HOSPITAL AFFAIR.

To the Editor of The Medical Record.

Dear Sir:—I notice in your valuable paper of date of November 27, 1875, No. 265, two articles—one a communication from an ex-appointee of the Presbyterian Hospital, the other a call for a mass meeting of the medical profession of the city of New York—the burden of the complaint being an alleged act of injustice done to certain medical gentlemen, through the failure of the Board of Managers to reappoint them on the medical staff of the hospital.

By the provisions of the Charter and Constitution of the Presbyterian Hospital, the property and concerns of the corporation are vested in and managed by a board of thirty-two managers. The Board of Managers has power to fill all vacancies, make by-laws, and appoint all such agents, assistants, and attendants as may be proper to carry out the purpose of such corporation. In pursuance of this power and authority, the Board of Managers adopted by laws for the government of the Board of Managers, and also rules and regulations for the government of the hospital.

By Section I. of the rules and regulations of the hospital, all physicians and surgeons connected with the hospital shall be appointed annually by the Board of Managers. The physicians and surgeons thus appointed annually constitute a Medical Board.

By Article VIII., Section 9, of the by-laws, if any officer, physician, or surgeon shall become unfit to execute the office, or misconduct himself . . . . the visiting committee or any member of the Board of Managers may exhibit against him a complaint . . . . . and on notice to him . . . a majority of the managers . . . . may discharge or remove the officer, physician, or surgeon complained of.

By Section II., Article 3, of the rules and regulations, the Medical Board at the regular meeting in May in each year shall elect a president, vice-president, and secretary. By Article III. of Section 2, the Medical Board has power to make rules for the internal management of the hospital, so far as the medical staff is concerned, subject to the approval of the Board of Managers; and Article VII. of Section 2 provides that in case of a vacancy in the Medical Board, they shall, *at the request of the Board of Managers*, recommend suitable persons for the appointment; but this article does not make it imperative on the Board of Managers to make this request.

All officers and appointees of the hospital know, or ought to inform themselves before taking office, of the by-laws, rules and regulations.

The general scope and meaning of the charter, constitution, by-laws and rules and regulations are evidently:

I. To vest the sole and exclusive power and authority in the Board of Managers; all appointees of whatever grade or description being subordinate to the Board of Managers.

II. To have the appointments of physicians made annually; and when such appointments are made, to have the term of office expire with the year; but for any misconduct which occurs before the expiration of the year, the offending person may be removed under Article VIII., Sec. 9 of the by-laws; and the appointment of any physician or surgeon does not give him a pre-emptive right to be reappointed. His reappointment is a matter of discretion of the Board of Managers, as much so as his original appointment.

III. To vest in the Medical Board the power to elect its own officers; also to make its own rules, subject to the approval of the Board of Managers.

It must be apparent that the Board of Managers and the Medical Board should act in harmony, and cooperate with each other, otherwise the usefulness of the institution would be seriously impaired; and it is but fair to assume that the Board of Managers have the best interests of the institution in view, and are the proper parties to decide on all matters pertaining to the management of the institution.

And in view of the complaints made of these gentlemen, the question naturally arises, in cases of difference of opinion or of any disagreement, which power shall control, the principal or the subordinate? To *remove* an appointee before the expiration of the term of appointment must be considered a harsh measure. To fail to reappoint him, or, in other words, to drop him, is a fair, reasonable, and proper exercise of discretion in the appointing power, with which the appointee has no cause of complaint. It was intended that by the first section of the Rules and Regulations of the Hospital, the Board of Managers might keep such a control of the medical service that a person who was not disposed to co-operate harmoniously with the managers of the institution might—though not guilty of any such offence as is contemplated by Sec. VIII., Article 9, of the by-laws—fail of a reappointment, or, in other words, be dropped from the medical staff.

Referring to the two articles in question, the burden of their complaint seems to be that four members of the medical staff were unjustly punished for voting for the man of their choice for the position of president of the Medical Board.

Let us see if they have just ground for complaint.

It was well known to all the officers and appointees of the institution that Dr. White, the former president of the Medical Board, was a personal friend of Mr. Lenox, the president of the institution, and the one to whose liberality and bounty the hospital owes its existence; and it was also well known that Mr. Lenox, as well as the other members of the Board of Managers (with the exception perhaps of the "one medical gentleman" spoken of), earnestly wished and expected Dr. White to be continued in the position of president of the Medical Board.

Now, without reference to the capacity or superiority of Dr. White or his successor, one would naturally suppose that a decent regard for Mr. Lenox, as founder and patron of the hospital, and the man of all others whose wishes should be respected, would have induced the Medical Board, before dropping the man of Mr. Lenox's choice, to give some notice of their intentions and their reasons for dropping him, and then give *him* the chance (which they claim for themselves) to resign, if he wished so to do, or to have a hearing (as they claim they should have had).

Did they do so? No. But with some others forming a clique, availed themselves of an accidental majority of *one*, at a slim meeting of the Medical Board, and, against the known wishes of Mr. Lenox and the Board of Managers, dropped Dr. White and elected one of their own clique, by the heavy majority of *one*; thus ignoring and snubbing Mr. Lenox and the Board of Managers. True, according to the strict letter of the Rules and Regulations, they had the formal right to do this; but had they the moral right? Was it in good taste, and conducive to harmonious co-operation hereafter with the Board of Managers, thus deliberately to put a slight upon Mr. Lenox? Was it right for these subordinates to arrogate to themselves a power contrary to the known wishes of the power that appointed them? Was it harmonious co-operation with the Board of Managers, for these gentlemen in the Medical Board to set up *their* choice against the known choice of the Managers? Was it not such an act of defiance and insult to the Board of Managers as to destroy their future usefulness?

The difference between these gentlemen "dropping" Dr. White as President of the Medical Board, and being themselves "dropped" by the Board of Managers, is simply this: These gentlemen and their clique endeavored to seize the control of the Medical Board, and to that end dropped Dr. White without cause or notice, and against the known wishes of Mr. Lenox and the other managers (with perhaps the exception of the aforesaid "one medical gentleman" referred to). The Board of Managers, in the exercise of a RIGHT given by the charter and by-laws, dropped *them*, by not reappointing them, because it was very evident that there would not be in the future any cordial or harmonious co-operation between them and the Board of Managers, and appointed four other gentlemen in whom they had confidence. In other words, the Board of Managers, not wishing to have anything further to do with these gentlemen, told them in a quiet way, by not reappointing them, that their services were no longer required. This they not only had a perfect legal and moral right to do, but it was a fair exercise of discretion. Furthermore, any publicity that has been or may be given to the affair is due exclusively to the fact that the four gentlemen dropped and their indiscreet friends are trying to make a mere private grief a matter of public notoriety.

These gentlemen and their clique had no scruples whatever in exercising what they claimed to be *their* RIGHT in dropping Dr. White without notice, thus fixing a precedent that could be applied to themselves; consequently, the Board of Managers had no scruples in dropping *them*, because the Board believed that the best interests of the Institution required it. "It's a poor rule that does not work both ways." These gentlemen set a precedent themselves, and gave a prescription to Dr. White that suited themselves; they surely ought not to make wry faces when their own medicine is given to *them*.

A few words in regard to the call for a mass meeting of the medical profession. This is simply ridiculous. What RIGHT has the medical profession to dictate to the managers of this or any other hospital who their appointees shall be? If the Board of Managers violate any law, they are amenable to the Law by a legal proceeding—not to a mass meeting. Suppose a trustee or vestryman of a religious corporation, or a director or a trustee of a bank, insurance company, or other corporation, should be quietly dropped by not being re-elected at a regular meeting, because his associates or the power appointing him did not wish his company any longer; what would be thought of a call for a mass meeting of "outsiders" to take the matter into consideration?

To what good or evil would a mass meeting tend: and supposing it to have been held, what will have been accomplished?

A Citizen.

New York, *Nov.* 27, 1875.

OUR RELATIONS TO PHARMACEUTISTS.

To the Editor of The Medical Record.

Sir:—Your excellent editorial on "Our Relations to Pharmaceutists" deserves the careful attention of the profession, inasmuch as it involves the most vital points in medical reform. It is a crying outrage that physicians continue, despite "the ban of a reproach," to keep drug-stores in their own names, or to hold an interest in the same. This mixing of a profession with a trade is scandalous, and is an injustice to pharmacists, whose business is already too much overcrowded and cut up by competition. It is fair to presume that such Jacks-of-all-trades are masters of none, and it should be the duty of the medical profession to expel such men from its ranks, to "unfrock" them, and refuse them all social and professional intercourse while they are engaged in trade, or have any interest, by percentage or otherwise, therein. What is needed is more pride, more *esprit* in our vocation, and if medical men cannot make a living in the legitimate exercise of their calling, then in Heaven's name let them drop their degrees—at least have the good taste not to use their titles, nor be addressed by them, when for any reason they engage in business, or become medical boarding-house keepers, etc., etc. No measures should be considered too "unjust, unreasonable, or harsh" that would weed out such men, or force them to relinquish their titles, and take a regular course in pharmacy before examination for apothecaries or pharmacists.

As to the sale of nostrums by apothecaries, it is an evil not to be removed by law or regulations. It will rectify itself in time by the introduction of approved formulæ for all the purposes for which quack medicines are now vended. This plan has been suggested, and deserves the attention of the American Medical Association, who should appoint a committee to decide upon and approve formulæ which druggists could conscientiously recommend to their customers in place of these nostrums, and by the sale of which *as large a profit* could be made. The object should be to *displace* quack medicines by equally as good or even better remedies, so that the public may not be humbugged, and the apothecary convinced that he will be no loser by the change.

When our physicians are obliged to be well educated, academically and professionally, and examined and licensed by State Boards appointed by the Supreme Court and College of Physicians of each State; when they are prohibited from engaging in any trade, or having any interest therein, under penalty of expulsion and loss of their degrees; when our pharmaceutists are regularly apprenticed and educated, and examined by disinterested State Boards, composed of apothecaries and physicians; when they are prohibited under a heavy penalty from prescribing over the counter, and from offering a "percentage" on prescriptions to physicians; when approved formulæ take the place of nostrums, and the public find more *tone* in all the branches of medicine and pharmacy—then will come that "Millennium" for which we devoutly pray.

E. N. R. O. B. E. L. C.

Portsmouth, N. H., *Nov.* 6, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Nov. 21st, 1875, *to Nov. 27th,* 1875:

Lippincott, H., Assistant Surgeon.—Granted leave of absence for one month. S. O. 90, Department of Arizona, Nov. 3, 1875.

NAVY.

November 27th.

Wilson, Joseph, Medical Director.—Ordered to special duty at Philadelphia in connection with the Centennial.

Toner, John A., Jr., Assistant Surgeon.—Ordered to the receiving ship *Wabash* at Boston.

Harvey, H. P., Assistant Surgeon.—Ordered to the Naval Hospital at Philadelphia.

Medical Items and News.

The Presbyterian Hospital Affair, and Hospital Management.—In answer to a call for a mass meeting of the medical profession, a large number of medical men assembled at the Union League Theatre on the evening of Nov. 30th. Dr. T. M. Markoe was elected chairman, and stated the object of the meeting, viz., the expression of opinion regarding the relations which should exist between the boards of management of our hospitals and their medical staff.

Dr. Geo. A. Peters read a detailed statement of facts connected with the Presbyterian Hospital affair, with which our readers are already familiar; after which a committee appointed by the chair, consisting of Drs. Agnew, Thomson, Roosa, and Delafield, made the following report:—

Whereas, Certain facts have been laid before this meeting embodied in the following statements, viz., that,

At the Annual Meeting of the Board of Managers of the Presbyterian Hospital, for the year 1875, four members of the medical staff were not reappointed, and were thus virtually dismissed; that no charges were preferred against those gentlemen; that no causes were alleged to have existed which assumed fault on their part, nor was a hearing afforded them, although very respectfully asked for; that this is the more remarkable when we take into account the facts that the measures against the medical gentlemen not reappointed were carried by a single vote; that respectful protests from the medical staff and from a very large number of medical men were made to the board of managers, but not regarded; that the vacancies thus made were filled without consultation with the medical staff; that several members of the medical staff subsequently resigned; that a committee of the board of managers was appointed to confer with the gentlemen who had resigned; that the board of managers contemptuously refused even to accept the report made by this committee, although it was of a conciliatory character, and thus gave additional evidence of the feeling that was entertained towards the medical profession.

That all the members of the committee except one, who was absent in Europe, instantly resigned. That other members of the board of managers, impressed by the injustice of these proceedings, also resigned.

In view of these facts, and of the principle that the good order and usefulness of hospitals must necessarily depend upon the maintenance of mutual respect and harmony between their boards of managers and their medical staffs, therefore be it resolved,

I. That the medical profession of New York cannot look with indifference upon these proceedings, but feel that such a precedent should not be established without protest on their part.

II. *Resolved*, That they believe that the four gentlemen dropped from the medical staff have not been treated with common justice.

III. *Resolved*, That no medical man should place himself in a position from which he may be dismissed without charges preferred or hearing allowed.

IV. *Resolved*, That we heartily approve of the action of those members of the medical staff who have resigned their positions, and thus refused to countenance an injustice done to fellow-members of their profession.

V. *Resolved*, That while we fully appreciate the great and wise beneficence of the founders and supporters of the Presbyterian Hospital in their efforts to secure a place of relief for the suffering poor, we deplore the treatment of the members of our profession, which has so much impaired the usefulness of what promised to be a great charity.

VI. *Resolved*, That in consideration of the primary importance of the relations of the medical profession to all hospitals, it is the sense of this meeting that similar occasions of disagreement between the boards of directors of hospitals and their medical staffs, as well as grave faults in the management or in the construction of hospitals, can be avoided only by an adequate representation of the medical profession in the membership of the boards of direction.

(Signed) C. R. AGNEW,
W. H. THOMSON,
D. B. ST. JOHN ROOSA,
FRANCIS DELAFIELD.

Prof. T. G. THOMAS spoke to the resolutions at length, reviewing the recent action of the managers of the Presbyterian Hospital, showing the necessity of a harmony of action between the executive board and the medical staff. While admitting the right of the board of managers to elect its medical staff, he maintained that no member of the latter should be dismissed without cause.

He was succeeded by Prof. W. H. THOMSON, Prof. AGNEW, Prof. GILLETTE, Prof. ROOSA, Prof. JAMES R. WOOD, Drs. STURGIS, O'SULLIVAN, and QUIMBY, when the report of the committee was unanimously adopted, and the meeting adjourned.

THE EAST RIVER MEDICAL ASSOCIATION BANQUET.—The tenth anniversary of the East River Medical Association was celebrated on the 22d inst., by an enjoyable dinner at Sieghortner's restaurant, No. 32 Lafayette place, Dr. Robert A. Barry, the President of the Association, in the chair. Fifty members and guests were present, and after dinner had been discussed, several ladies, the wives and daughters of the members, were introduced and were present during the remainder of the programme. The President felicitously prefaced the toasts of the evening by a brief historical address, in which he reviewed the progress of the Society from the date of its organization.

DR. VERRANUS MORSE eloquently responded to the toast, "Our tenth anniversary: in the day of prosperity be joyful." This was followed by the sentiment, "Our departed ones,—gone, but not forgotten," standing, and in silence. After which a dirge by the band.

The REV. WM. N. DUNNELL, Rector of All Saints', spoke to the following: "The Clergy, our coadjutors: to them is committed the cure of souls, as to us is delegated the cure of the body. Together may we so entwine the healing art as to realize the promise of the life that now is and of that which is to come."

MR. CLARK BELL, of the New York Bar, ex-President of the Medico-Legal Society, followed in response to the toast, "The Bar, our ambitious rival: while the doctor is satisfied if he can keep his patients in a condition to will and do for themselves, the lawyer aspires to make their wills and deeds for them."

"Our Medical Schools: not unmindful of our early training, and true to our alma maters, we greet to-night their present official representatives."

Chancellor HOWARD CROSBY responded for the University Medical College, in his happiest vein. Dr. Chas. S. Roberts followed for the College of Physicians and Surgeons in the absence of Prof. T. Gaillard Thomas, who, in consequence of a recent family bereavement, had sent his regrets; while Dr. James W. Bowden took up the gauntlet for the Bellevue Hospital Medical College, and paid a glowing tribute to his preceptor, Prof. James R. Wood, the expected respondent.

"Our Sister Societies—the Academy and the County—though old maids, their families are large and respectable," being next in order, the President, after reading a letter from Dr. Saml. S. Purple, the President of the former, and announcing the unavoidable absence of Prof. H. B. Sands, the President of the latter, called upon Dr. Horace T. Hanks, as one of the Vice-Presidents of "the County Medical."

"The Medical Press—Adjunct Professorships and Post-Graduate Course of Instruction," was responded to by Dr. John Shrady, followed by Dr. John P. Garrish.

"The Daily Press: the magnetic wire that puts us in communication with all the ends of the earth," brought up Mr. Isaac Henderson, Jr., of the *N. Y. Evening Post*, who discoursed upon ideal journalism.

DR. TRUMAN NICHOLS responded for "Woman—the physician's best friend." in a characteristic speech, abounding in humor, poetry and philosophy.

The President in the course of the evening announced the death of the Hon. Henry Wilson, Vice-President of the United States, and called upon Frederic Wagner, Esq., as a friend of the deceased, to respond.

DR. WILLIAM NEWMAN, in behalf of his colleagues upon the Anniversary Committee, Drs. John Burke, George V. Skiff, Verranus Morse and Truman Nichols, replied to the vote of thanks unanimously passed in recognition of their efforts to make the occasion a success.

WEEKLY BULLETIN OF THE MEETINGS OF MEDICAL SOCIETIES.

Monday, Dec. 6.—N. Y. Neurological Soc., 12 W. 31st st.

Tuesday, Dec. 7.—N. Y. Medical Journal Association, 12 W. 31st st. Election of officers.

Wednesday, Dec. 8.—N. Y. Pathological Society, College of Phys. and Surg., 23d st., corner of 4th Ave.

Friday, Dec. 10.—N. Y. Medical Journal Association, 12 W. 31st st.

Original Communications.

CASES OF BENIGN AND MALIGNANT TUMORS TREATED BY ELECTROLYSIS.

By GEORGE M. BEARD, M.D.,

NEW YORK.

In a recent communication to the Record I stated in general what could and what could not be done in the treatment of tumors by electricity. In this paper I will illustrate by a few cases some of the propositions then advocated.

Some of the cases, it will be observed, differ in the methods and combinations of methods used, from others previously reported; while others but confirm the results of experiments already made public.

Case I.—*A Glandular tumor disappears under persevering treatment by external galvanization and faradization, and electrolysis.*

Mr. J. C., aged 23, was referred to me, May 2, 1874, by Dr. Mitchell, for a glandular tumor on the left side of the neck below the ear. Six months the tumor had existed, and it had resisted iodine internally, and other methods also. For a number of times I used external galvanization, and sometimes faradization with strong interrupted currents, with a view to break up the tumor by the mechanical action of the current, as suggested by Meyer.

These methods did not have the effect to reduce the size of the tumor, but caused it to soften in the centre, and on the 26th of May I opened it. Considerable pus and blood escaped, and I then treated the cavity by mild electrolysis with a needle connected with the negative pole. This treatment was used a few times, and the tumor subsided and the wound healed. Glandular tumors as a rule do not yield rapidly or brilliantly to the electrical influence, whatever the method of application. In the above case there was nothing of the immediate rapid subsidence that we sometimes see in goitres after one or two applications; but the end was attained by constant hammering until softening occurred, and the process of absorption after the evacuation of the pus appeared to be aided by the electrolytic treatment.

I have seen glandular tumors and enlargements resist utterly external faradization and galvanization, and even when the needles are used the tumor will not always soften as in the above case.

Case II.—*Ganglion treated by electrolysis.*

A lad, aged 14, referred to me by Dr. Bennett, had a weeping sinew on the wrist. It had reached the size of a large walnut. The patient was fully anæsthetized, and two needles, one connected with each pole, were inserted into the tumor, the positive needle being kept *in situ*, and the negative worked in various directions inside, so as to electrolyze all the internal surface. The operation lasted ten minutes. A small amount of decomposed fluid escaped at the hole made by the negative needle, and the swelling subsided, perhaps about one-third or one-half.

The tumor was dressed with a pad, over which a bandage was tightly drawn. For two or three days there was some inflammation and considerable pain, but in a few days the inflammatory signs disappeared, and the tumor appeared only as a flattened elevation. The result was, therefore, most satisfactory. It may be noticed that the method of electrolysis used in this case was similar to that which I have employed and recommended for cystic growths in general; in fact, this weeping sinew was treated precisely as any cystic tumor, which is the very reverse of the method of working up the base that I use for malignant growths. In cystics of a benign character, when the walls are moderately firm, I *work up the inner or secreting surface* by passing the needle into the body of the tumor, and press the point in all directions against the inner surface. By this method a threefold object is accomplished: the evacuation of the fluid constituents, which of itself alone is of slight moment, and would not avail to cause absorption of the tumor; the artificial inflammation of the inner surface, so that secretion is stopped; and finally the general absorbent effect of electricity upon the inner surface and upon the body of the tumor.

The inflammation excited by electrolysis appears less inclined to extend than inflammation excited by most other causes. I form this opinion from clinical observation simply.* In the above case I should have been apprehensive lest the inflammation would extend up the tendon, and perhaps cause annoyance, were it not for this fact, that inflammation excited by electrolytic action is usually circumscribed, however severe it may be.

Hydrocele, if treated by electrolysis, should be treated by this method, and some of the failures and uncertainties attending electrolysis in hydrocele can, I suspect, be explained by the fact, that the treatment has been used with a view only to decompose and evacuate the contents of the sac, while the secreting surface has not been touched. It is true, I admit, that in some cases the irritation caused by introducing the needle, and the action that takes place near it when by chance it may strike the inner secreting surface, may be sufficient to bring about a permanent cure. In one such case of hydrocele in a child, where the little patient would not bear thorough treatment, a single introduction of one needle, and the application of a mild current for a short time by Dr. Sterling, was enough to cause permanent disappearance of the hydrocele, but such results are exceptional, and are not to be expected.

Case III.—*Nævus of the cheek—Disappearance after two electrolytic operations.*

A child five months old had a nævus on the middle of the left cheek. The growth appeared to be a combination of the external and cutaneous, being somewhat raised above the skin and extending downwards so as to involve the skin, and making it necessary for the operation to be very thorough; and on examining the tumor I felt assured that ordinary mild electrolysis with a feeble current would do little or no good—that a thorough operation should be used, or none at all; and it seemed best to try a method resembling that employed in working up the base of malignant tumors. I was confirmed in this decision by the fact that the case had been operated on by mild electrolysis very many times, and no good had resulted, and the tumor was about one inch in length and three-quarters of an inch in breadth, and was increasing in size; its first appearance being when the child was a few days old.

May 24th, I operated twelve minutes with ten weak cells; a needle connected with each pole being inserted at the base, the positive being kept *in situ*, and the negative worked in various directions until two-thirds of the tumor was destroyed.

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* In the case of a large subcutaneous erectile tumor on the head of a child, on which I twice operated for Dr. Alfred C. Post, at the Presbyterian Hospital, serious symptoms occurred, although the tumor was solidified and absorbed, and the patient recovered.

May 31st, I again operated with twelve cells for ten minutes in the same way, and completed the dissolution of the tumor from the base through the borders in all directions where enlarged capillaries appeared.

In both operations an anæsthetic was used. The method of electrolysis used in this case was a sort of compromise between the full method of electrolysis of the base used for epithelioma, and the method generally employed for nævi. The needles were not inserted any considerable distance from the body of the tumor, and not at all into the healthy tissue, but only into those parts where the vessels were enlarged.

After an operation of this kind there must be a scar: this was expected, and any attempt to treat a case of that peculiar kind by electrolysis, or by any other method, without leaving a scar, would fail.

May 11th, 1875, the scar was about an inch long, and was almost colorless.

Case IV.—*External nævus treated by electrolysis—One operation—Successful result.*

A child two years of age was seen by me with Dr. Bird, April 11th, 1874. On the left cheek there was an external nævus, about the size of a filbert. It presented no unusual appearance, and as some very mild tentative operations had failed, it was thought best to use a sufficiently strong application to do the work at once. The parents were fearful of an anæsthetic, the father preferring to hold the child during the operation, which was performed with a moderate current from a few cells, and lasted about fifteen minutes; with an anæsthetic a stronger current could have been used, and the application would have been shorter. A single needle attached to the positive pole was inserted into the nævus, and the circuit was completed through a sponge at the negative pole held near by. On account of the struggling of the child the operation was carried out at great disadvantage, especially as the desire was to make as little disfigurement as possible. In regard to the best method of electrolysis for "port-wine stains," I am not decided. Two or three cases of that kind are now under my observation. Dr. Althaus, of London, in a paper recently sent me, says that five or six operations are sometimes necessary for these cases; and implies that in this way they may sometimes be removed without disfigurement.

I may say here, that it is of immense advantage, in most of these operations, to have the patient fully anæsthetized; and as young children almost always, I believe, bear ether or chloroform well, even mild and short operations are better performed when these agents are freely used. The moving and displacement of the needles by the motions of the suffering patient, cause the disfigurement to be greater than it would be otherwise, as well as make the task of the operator much harder. Local anæsthesia will hardly answer for many of these cases, and the hope expressed by Dr. Althaus,* that croton chloral would answer the purpose for benumbing the nerves of the face, has not, according to my observations, been fulfilled.

It is worthy of remark, that young children bear electricity, faradic and galvanic, better than adults. They feel the temporary pain caused by the chemical or mechanical action of the current on the body, just as they would feel any other irritation; but the unpleasant secondary or reactive effects sometimes seen in adults after severe or prolonged applications, they do not appear to experience. This remark applies, not only to applications on the body in general, but to applications, electrolytic or external, around the head, neck, and face. I insist on this fact, which has been made evident to me by special and systematic experiments in the treatment of young children, because on the part of some there is apprehension lest evil effects may follow electrolytic operations on infants but a few weeks or months old. On *a priori* grounds it would be supposed that children would be more susceptible to the electrical force than adults; our general knowledge of the impressibility of the nervous system in early years would make this supposition quite probable; but in this, as in so many matters, reasonings based on our necessarily imperfect physiological knowledge must yield to the conclusions of experience.

Case V.—In a case of hemorrhage from the gums, the effects of mild electrolysis were very interesting. For two years a lady of middle life, a distinguished actress, had been annoyed by repeated and oft-recurring hemorrhages from the gums of the upper jaw. The blood came from the gums just behind the middle incisor teeth, and it was impossible to tell its precise point of exit. There was no swelling, no ulceration, no inflammation or congestion, at ordinary times; indeed, there was nothing to distinguish that portion of the gum from any other portion, or from the gum of a person in health. At times, there would be a fulness, a filling up, so to speak, of that portion of the gum, and the blood would flow freely. This accident would occur at any time of the day, but quite regularly in the morning. One time she was taken while acting before an audience. The amount of blood lost at each hemorrhage was considerable, varying between half an ounce to a wine-glassful, but the local remedies that had been tried, including of course the persulphate of iron, made no permanent impression. The patient was generally debilitated and was suffering from hepatic disorder, and her debility was increased by the frequent losses of blood.

I decided to use electrolysis, although I knew not just where to put the needles; but hoped that the coagulating effect of both poles on the capillaries of the gums might have a tendency to diminish, if not to stop, these hemorrhages.

Being a lady of very great power of will, and somewhat fearing ether, the operation was performed without an anæsthetic. A small needle, connected with the positive pole, was inserted about one-eighth of an inch into the gum just between the incisor teeth, and another small needle, connected with the negative pole, was inserted the same distance into the gum near by. A very mild current was used, for this part is sensitive to electricity as to every other form of irritation. The operation lasted but seven minutes, and was twice interrupted on account of the pain produced.

For a week after this operation there was no hemorrhage: electrolysis had thus accomplished more than any treatment that had been used.

March 12.—The operation was repeated with a somewhat stronger current and longer application.

In a few weeks the patient died from, as it was reported, disease of the liver.

Malignant tumors, if large and hard, may be removed with the knife, and the base thoroughly electrolyzed in all directions; but if they are small they can be removed by the electrolysis, and the base may be electrolyzed at the same time: the same operation that removes the tumor also works up the surrounding tissue.

The healing is rapid and very satisfactory after operations of this kind, even when the wound is quite extensive and much sloughing takes place; and on *a priori* grounds it would seem that there would be less likelihood of a return than when the divided parts are closed to heal by first intention. Some of the cases on which I have operated by this method during the past four years I see occasionally, and are doing well; others I have lost sight of entirely. In one of the following cases there was, in less than a year, a return of the tumor, but, as will be seen, the case was one far advanced. Some cases that I have seen have been so far gone, the cancerous cachexia so marked, that all I have tried to do was to relieve the pain, and make the patient more comfortable.

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* Archives of Electrology and Neurology, Vol. I., No. 1, p. 1, 1874.

Case VI.—*Scirrhus of the breast—Removal by the knife—Electrolysis of the base.*

In the summer of 1875 I used the method of electrolysis of the base in a case of scirrhus of the breast, under charge of Dr. Stephen Smith, at Bellevue Hospital, who first removed the tumor and an enlarged gland in the axilla by the ordinary method, and left the wound open.

In operating I used the long cutting needles connected with both poles, and a current of considerable strength. The whole base was electrolyzed more or less with one pole, and some of the time the narrow electrode was used.

The patient did well after the operation, but was attacked with erysipelas—so I was informed by Dr. Smith—which travelled in various directions over the body. There was, I believe, some erysipelas in the hospital at the time. The healing went on most satisfactorily even during the attack of erysipelas. She left the hospital when she was able to do so, and we lost sight of her.

Case VII.—*Epithelioma of the face treated by electrolysis of the base.*

An old man, who represented himself to be between 70 and 80 years old, appeared at the Department of Electro-Therapeutics and Nervous Diseases, Demilt Dispensary, in the spring of 1874, with a long, narrow ulcer—clearly an epithelioma—on the left side of the face below the eye. It was about half an inch in width, and extending from the zygomatic arch halfway up the nose. The bone was apparently nowhere affected, and hence it was believed that the case would be a favorable one for the method of electrolyzing the base in spite of the age of the patient.

The patient was fully etherized, and, in the presence of a number of medical men, the long cutting needles were inserted beneath the growth in various directions, and the whole base and the surrounding tissue for some distance thoroughly worked up. All portions of the growth fell off during the operation, so that there was no occasion for the use of the knife. The patient came out of the operation—which was about half an hour in length—very well, and walked home. We have not been able to keep track of him.

Case VIII.—*Large epithelioma of face treated by excision and electrolysis of base—Recurrence.*

Mr. G. F. O., aged 70, strong and vigorous, was referred to me Jan. 8, 1874, by Dr. J. H. Wikoff, of Princeton, N. J. Two years before, the patient cut himself with a razor on the right side of the face, over the malar bone, while shaving. The scratch was a slight one; but it did not heal, and in the course of a few months it became quite hard, and this hard tissue assumed in time the appearance of an epithelioma. Dr. Wikoff first operated on the tumor July 5 by ligature; Sept. 13 used caustic potash, and Dec. 12 operated by subcutaneous ligature. After all these operations the tumor quickly returned. At the time when I first saw it, it was about the size of an English walnut, ulcerated in the centre, with a hard base.

It was decided to operate by the method of working up the base, combining with it the knife to shorten the operation. On Tuesday, Jan. 13, I operated, with the co-operation of Dr. A. B. Crosby; Dr. J. Van Bibber assisting, and Dr. N. B. Emerson giving the anæsthetic.

Dr. Crosby first made an incision through the skin, around the tumor, in the healthy tissue. A wire connected with the galvano-cautery battery of the Galvano-Faradic Mfg. Co., heated to white heat, was applied in the incision and allowed to remain there until the hemorrhage stopped. The application of the cautery was not necessary, but was used as a convenience merely in checking the hemorrhage. The use of the knife was not absolutely necessary, but much shortened the operation, since it saved all the time that would have been required in working through the skin with the needles.

I next plunged one of my long cutting needles beneath the tumor, and connected it with the positive pole of a zinc-carbon battery; the negative needle, which was narrower, thinner and sharper than the other, I placed also beneath the tumor, into the base, through the line of the incision, and at a little distance from the positive needle. The current was gradually increased to twenty cells, when the electrolytic action was very powerful, and the negative pole soon began to be loosened; and I slowly worked it sidewise, until in about fifteen minutes the tumor was dislodged and was taken off. The base was then carefully and thoroughly worked up in all directions until all the hard tissues had been destroyed, and the cavity presented a charred appearance. The entire operation lasted nearly an hour. A small arterial branch was ruptured, which was tied by Dr. Crosby. The patient came out of the ether well, and returned home the same afternoon. To my great astonishment he had no irritative fever on the following day, but was able to go about. Much less sloughing than usual followed, and very soon the process of healing began. The complete healing was not accomplished, for up to the middle of March a small scab remained. The wound was dressed by the suggestion of Dr. Crosby, with oakum and carbolized oil.

The tumor was taken for microscopical examination to Dr. Francis Delafield, who gave the following report:

January 20, 1874.

"The specimen received from you consists of an ovoid piece of skin, in which is a deep ulcer. The walls of this ulcer are formed of granulation tissue, in which are imbedded nests of epidermis cells closely packed. The surrounding skin is infiltrated with groups of small rounded cells, with a few similar nests. This infiltration extends through nearly all the skin removed.

It is probable, therefore, that the removal was not a complete one, but that some portions of the new growth were left behind.

The growth has the usual appearance of epithelial cancer of the face."

The tumor recurred, and I again operated in the same way, although not sanguine of the results, but hoped at least to keep the disease at bay. The operation was more thorough than the first, the needles extending as far as it was safe to do without injuring the temporal artery. It was clear that the disease had attacked the bone, and that however radical might be the removal of the soft parts, and however thorough the electrolysis, there would be a probability of recurrence in time. I learn that the tumor did recur, or rather that the healing was not complete.

Out of a large number of malignant tumors on which I have operated by this method, in four only did the wound refuse to heal, and in two of these the healing, up to a certain point, was, in the estimation of the surgeons who saw them, surprisingly good.* This is one case of epithelioma of the face in which the operation did not work well. It would be very desirable, if it were possible, to make a fair and full comparison of this method of electrolysis of the base with the ordinary method of operating with the knife, or with the treatment of the base by caustics. Such a comparison, to be of value, must include quite a number of cases, studied by experienced surgeons and operated in all the methods, and these cases should be watched for months and years after the operation. An extended comparison of this kind is perhaps impracticable, and in lieu of it we can only judge by careful study of all cases on which this method is used, and keeping them under observation as long as possible. Points already proved are, that the healing after this method is very satisfactory, that pyæmia does not follow, that the irritative fever, when it occurs, is not dangerous, and that in a certain proportion of the cases the results are permanent, and apparently more so than after simple excision. My friend Dr. W. F. Hutchinson, of Providence, has had much experience with the method of electrolysis of the base, and reports very favorably of it.

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CELLARS AND DIPHTHERIA:

TOPOGRAPHICAL OBSERVATIONS OF TWENTY RESIDENCE SITES, IMPARTIALLY SELECTED, IN WHICH DIPHTHERIA HAS OCCURRED, IN THE CITY OF DES MOINES, DURING THE SUMMER OF 1875.

By A. G. FIELD, M.D.,

DES MOINES, IOWA.

In nine residences, with thirty-eight inmates, an alluvium overlying sand and gravel, with dry cellars beneath, and insufficient side ventilation, there were twenty two cases and four deaths.

In two residences, with fourteen inmates, on alluvium overlying sand and gravel, with wet cellars and insufficient side ventilation, there were four cases, but no deaths.

Five residences, with twenty-six inmates, on alluvium, clay subsoil, damp cellars, with insufficient side ventilation, there were fourteen cases, and three deaths.

Two residences, with fourteen inmates, on filled ground over alluvium, clay subsoil, wet cellars, with insufficient side ventilation, there were nine cases, and four deaths.

Two residences, ten inmates, on low ground, damp cellar, in alluvium with insufficient side ventilation, there were four cases; no deaths.

A window, or an outside door on the south or west only, from which directions come the prevailing winds, as well as openings through basement walls less in the aggregate than one square inch for one square foot of area, are deemed insufficient for ventilation; and more especially so where a door opening through the floor into the cellar has been in daily use. In four instances there was no outside opening whatever. These observations were made, not with a view to sustaining some preconceived opinion or favorite theory, but to arrive at, as far as possible, some of the peculiar conditions under which diphtheria has originated.

The classified grouping shows a cellar or ground excavation under all of the residences where the disease has occurred, and that the greatest fatality has been where the natural surface, previously buried beneath filled earth, has been excavated, thus exposing a zone of great porosity between the original surface and filled earth. The fair inference would be, that with the natural surface was buried also more or less of organic matter, the volatile products of the decomposition of which would thus find an easy outlet; and, therefore, there has been the greatest fatality where the circumstances have been most favorable for the escape of the largest amount of ground air. The lines of greatest porosity in the earth's substance lie more or less parallel to the surface, favoring lateral currents, and this fact applies more especially to these drift formations; and wells, cellars, and shafts afford the most easy escape for ground air, containing as it does a large per cent. of carbon, nitrogen, and other products of the decomposition of organic substances. But that ground air does escape through the more compact surface when no excavation offers, is beyond question; and it is only necessary that a dwelling be exposed to the confined air beneath it, to subject its inmates to the deleterious consequences of such poison, if it is not the pabulum and natural habitat also of noxious living organisms.

Another condition presented in the grouping is moisture. It is not certain that a dry cellar in so porous stratum as sand and gravel is, gives forth less water vapor than one in clay containing water does, although the latter certainly affords less ground air, and it is pretty safe to assume that in cellar air in general is an excess of water vapor. This of itself, within a certain limit, is not harmful, and some virtue even is attributed to it as employed in the celebrated *Spas* of Europe, and by residence upon the sea-shore. But the air of the sea-breeze, triturated in adverse currents, and even that of the prairie winds with often traces of ozone also, is comparatively free from organic impurities. That a moist atmosphere in the ordinary course of natural events may so modify or develop the elements of organic matter as to become accessory to, or productive of, zymotic poisoning, three conditions of it are essential: 1st. A temperature above 50° F. 2d. A state of comparative quiescence or stagnation. 3d. The presence of the products of organic decomposition. All of these conditions are present in a very large majority of unventilated cellars, as well as beneath houses without cellars, where atmospheric air does not have free access.

Here another fact that has happened to come under observation may justify a digression. For the year ending Sept. 1st, 1875, seventy-three (73) per cent. of the interments in potter's field, as is shown by the register of the sexton, were of children five years of age and under (who were, consequently, mostly confined to house air); while in the cemetery proper only fifty per cent. of those interred during the same time were five years old and under. And in potter's field the average age of those buried during the same period is ten + years, while in the cemetery proper it is twenty + years. When these facts are associated with the further facts, that seven-eighths of those whose dead are buried in potter's field live upon the low grounds or sandy flats that constitute the point above the confluence of the Des Moines and Raccoon Rivers, and extend also east of the former and south of the latter;

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* One of these cases—a scirrhus of the rectum—was reported by Dr. Crosby in the Archives of Electrology and Neurology, Vol., No. 1.

while a large majority of the better-to-do citizens reside upon the higher bluffs that on every hand surround the business portion of the city, they have an unmistakable significance. In these sandy flats that are the older portion of the city stables, cellars, privy vaults and wells have, for many years, been interspersed with nothing that approximates or deserves the name of sewer to mitigate the consequences.

But to return to the subject proper of this paper; the following deductions may be drawn from the observations:

That all ground exposures of cellars should be cemented. Floors over them should be tight, and inside doors never allowed.

That cellars constructed with a fire-place in them, with an adequate chimney extending to the top of the building, to be used for ventilation, may remove to a large extent the evils arising from sub-dwelling basements and cellars.

That in all instances where such ventilation is not provided side openings in all of the cellar walls should be in constant use, such openings to be not less on each side than one square inch for every square foot of corresponding side and area.

Progress of Medical Science.

Stricture of the Urethra in the Female.—Dr. Robert Newman reports four cases, which are presented as examples of true stricture of the female urethra. They were all met with in the course of eighteen months. It is thence inferred that urethral stricture is not such a rare occurrence in women, as the slight mention accorded to the subject in the literature would lead one to suppose. A constriction was detected in each case by means of bougies, varying in size from No. 1 to No. 8. They occupied various portions of the canal: at the meatus at three-quarters of an inch, and seven-eighths of an inch distance from the meatus; and in one case, it is said, involved almost the entire urethra. As for the causes of the strictures, one case was attributed to syphilis, one to irritating injections in gonorrhœa, one to granular urethritis, and one to general urethritis occupying the whole length of the canal. The principal agent employed in the treatment of these cases was electrolysis, and in each instance it proved entirely successful. The method of its application consisted in the patient's holding the sponge electrode of the positive pole in the palm of the hand, while a metallic bougie, varying in size according to the amount of constriction, was connected with the negative pole of the battery and passed down to the stricture. In a few moments the latter readily yielded to the galvanic action, and a larger instrument could be introduced. Three or four sittings, at intervals of from a few days to a week or more, sufficed to effect a cure. From five to eleven cells of Drescher's battery were used, and the strength of the current was always gradually increased from zero until a feeling of warmth and a slight prickling sensation were produced. In the fourth case, which seemed to be owing to a previous blennorrhœa, the meatus urethræ would only admit a sound smaller than No. 1 of the English scale. A No. 6 metallic olive-shaped bougie was pressed against the meatus, and eleven cells of the battery were employed for five minutes. The instrument advanced for half an inch, when "a fibrous band was distinctly felt stretching across the urethra. This was overcome by degrees, and another stricture was discovered just anterior to the bladder." Two days after the operation, a "carneous plug" was discharged from the urethra, and the patient was greatly relieved. After two more applications she was discharged as cured.

Allusion is made to a "spasmodic stricture" in a fourth case, which was likewise treated successfully by galvanism. It is not stated that spasm had anything to do with either of the other cases.—*The American Journal of the Medical Sciences*, October, 1875.

Capillary Puncture of the Intestines in Tympanites.—An interesting article in the *Bulletin Médical du Nord*, by Dr. Cuignet, contains the following points:

1. The puncture should be made by giving a rotary motion to the needle, which is held between the fingers at the surface of the body.

2. It can be perceived the moment the needle reaches the gaseous cavity as well as the moment it touches the opposite wall, thus showing the exact dimensions of the cavity.

3. The gas does not escape spontaneously, however distended the cavity may be which contains it, but it must be withdrawn by aspiration.

4. Only the fold of intestine in the immediate vicinity of the puncture is evacuated, but all of the folds of the intestine must be punctured to obtain any considerable relaxation.

5. Each fold as it is punctured collapses, and its place is filled by the two folds above and below it, which maintain the tympanites in the same region, until they also are punctured.

6. Either the gas alone may be withdrawn, or both the gas and the liquid matter in the intestine, by graduating the depths to which the needle is made to penetrate.

7. It is esteemed prudent to always extract the liquid in the vicinity of the puncture.—*La Tribune Médicale*, October 3, 1875.

The Presence of Dextrine in the Urine.—It is stated that under the influence of the alkaline waters (Vichy, Vals, Carlsbad) the sugar entirely disappears from the urine of diabetic patients, but that the liquid still continues to act feebly as a reducing agent in Fehling's test. According to E. Reichardt, of Jena, this is owing to the presence of a small quantity of dextrine. His method of analysis is as follows: The urine is evaporated over a sand-bath to a syrupy consistence; the residue is treated with alcohol and caustic potash as in testing for sugar; a deposit is formed, from which the supernatant liquid is easily separated. The deposit is washed several times with absolute alcohol, and then treated with dilute acetic acid, by which it is dissolved. The addition of absolute alcohol again reprecipitates the dextrine; the alkaline acetate and the sugar (of which slight traces exist), remain in solution. After being well washed with alcohol, and then dried, the precipitate becomes a white powder of an insipid taste, and soluble in water; its aqueous solution reacts very slowly to Trommer's test, very dilute sulphuric acid transforms it into glucose, which reacts to Trommer's test immediately. On contact with iodine the powder becomes of a brownish-red color. The elementary analysis gives the $C^{24} H^{20} O^{20}$ of dextrine or glycogene. Nothing is said with regard to its action on polarized light.—*Journal de Pharmacie et de Chimie.*—*Journal de Médecine*, Aug., 1875.

Non-regeneration of the Crystalline Lens in Man and in the Rabbit.—M. J. Gayat stated recently before the French Academy of Sciences, that there was no well authenticated case on record where the lens in the human subject had been regenerated. Moreover, experiments upon rabbits had led him to the conclusion, contrary to the opinion maintained by others, that the lens in these animals also is not regenerated. The results of his researches are expressed as follows:

1. In young rabbits, when the interior of the capsule has been carefully laid open, and almost the entire lens has been removed, after several weeks certain more or less transparent masses are observed, which have some of the histological characters of the normal crystalline lens.

2. In older rabbits these productions are less constant, and differ from the normal lens still more in their anatomical characters.

3. The intracapsular masses, heretofore regarded as new formations, are merely the consequence of the normal development of the crystalline elements which remain adherent to the capsule, even after the most thorough extraction of the lens.

4. The crystalline mass observed is the more considerable the greater the interval between the extraction and the autopsy of the eye, and the younger the animal, that is, the farther it is from its period of complete development.

5. The sum of the masses extracted and of those found in the eye at the autopsy approximate nearly in weight to that of the other eye left intact.

6. There is no reproduction, or scarcely any, in the neighborhood of the lacerated lips of the capsular wound.—*Gazette Médicale de Paris*, Sept. 25, 1875.

The Formation of Urinary Calculi.—Ultzmann has been studying the origin and development of calculi by the aid of carefully made sections of a large number of specimens. He found that in 480 calculi of primary, *i.e.* renal origin, the nucleus in 441, *i.e.* 91.8%, was uric acid; in 31, or 6.4%, oxalate of lime; in 8, or 1.6%, cystine. With regard to their composition, he finds that among 224 vesical uric acid calculi the nuclei in 208, or 92.8%, were uric acid, in 15 oxalate of lime, in one, earthy phosphates; among 130 oxalate vesical calculi, 124 nuclei were uric acid or 95.4%, five were oxalate of lime, one was earthy phosphates; among 185 phosphatic vesical calculi, 109 nuclei, or 58.9%, were uric acid, eleven were oxalate of lime, two were cystine, eighteen were foreign bodies, and among six vesical calculi of cystine the nuclei were all of the same substance; among multiple calculi, out of four cases aggregating seventy-three stones the nuclei were all of uric acid. With regard to renal calculi spontaneously discharged, out of a total of 319 he found a nucleus of uric acid in 306, or 99%; of oxalate of lime in four, of cystine in nine. Of nine large renal calculi the nucleus was uric acid in seven, or 77.7%. Also it was of uric acid in all of five urethral calculi. Thus in the whole number uric acid forms the origin of the calculus in 93.8% of primary calculi. In infants too his investigations agree with those of Civiale, that uric acid concretions are very influential in the formation of calculi. Moreover concretions of oxalate of lime were never found in the new-born child. After reviewing the opinions of other authors on the primary formation of calculi, U. expresses his own conviction that the primary formation is always in the kidneys from urinary deposits, viz., uric acid, urate of soda, oxalate of lime and cystine; while the secondary formations are as constantly in the bladder from deposits from alkaline urine, such as urate of ammonia, carbonate of lime, amorphous phosphates, ammonio-magnesian phosphate and crystalline phosphate of lime. The greater the acidity of the urine, too, the greater the tendency to the formation of calculi, owing to the shape and character of the uric acid crystals there deposited. Food, drinking-water, constitution, etc., also exert their influence.—*Wiener Klinik*, May, 1875.—*Rundschau*, Sept. 15, 1875.

The Puerperal Diseases of the Mammæ.—At the lying-in institution at Dresden, Dr. Huebner has collected some statistics of the most common affections of the breasts in puerperal women. He finds that of 2,300 women who were able to nurse, 918 or 39.9 per cent. suffered from affections of the breast. It is supposed that the results of similar observation in private practice would be more favorable than those made in an hospital. 40 per cent. of those attacked were primiparæ, and the thirty-third year seemed the most liable to such difficulties. The conditions favoring those diseases were a strong constitution, a delicate skin, a medium or small size of the breast, a short and retracted nipple—one difficult for the child to get hold of—a bad development of the parenchyma of the gland, and a small quantity of secretion in the gland previous to confinement, as against the opposite state of these facts. The pressure and suction necessarily exercised by the child in the act of nursing determine, as primary affections in the nipple, redness, erythema, vesicles, and fissures, followed secondarily by swelling of the nipple, of the milk ducts, with scabs, erosion, and ulceration. Eczema is to be considered as a special disease. In addition to these affections the areola is liable to follicular abscess and partial inflammations, resulting in localized indurations. Inflammation of the parenchyma of the gland, or mastitis parenchymatosa proper, appears to begin as a hyperæmia of the interacinous tissue, with exudation into the meshes of the connective tissue, leading to strangulation and inflammation of the separate acini, the pain being due to pressure on the nerves. These changes are accompanied by increase of temperature and of the frequency of the pulse. Wounds of the nipple, blows on the breast, a chill or a powerful mental emotion, may, on the second, third, or fourth day, convert the physiological swelling of the gland into a mastitis. Among 2,300 nursing puerperal women, the author found 136 cases of mastitis. He states that a previous mastitis does not prevent nursing subsequently, nor does nursing often evoke a new mastitis, although marked alterations in the gland and many cicatrices and contractions predispose to it. His treatment of all lesions of the nipple and areola consists in the constant application, day and night, of lukewarm compresses, wet with lead-water; fissures, ulcers, and excoriations being touched once or twice a day with balsam of Peru, and the breast well supported. The child should nurse less often than usual, and where possible through a nipple shield. He recommends the warm lead-water in mastitis also, to be followed by strapping of the breast and free incision, while suppuration is promoted by poulticing.—*Deutsche Ztschr. f. prakt. Med.*, 21 and 22, 1875; *Schmidt's Jahrb.*, Sept. 8, 1875.

New Source of Lead Poisoning.—M. Lancereaux has discovered a source of saturnine intoxication in the yellow cord-fuses used for lighting cigars. The yellow color is produced by the chromate of lead in a workshop where the fuses were manufactured. L. has found that all the workmen had the lead border upon the gums. One of them, whose duty it was to reel the thread, and who absorbed more of the yellow dust than the rest, suffered from lead colic.—*Lyon Médical*, Oct. 3, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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PRESCRIBING APOTHECARIES.

There is perhaps no question connected with the mutual dependence of physician and apothecary which calls for a more thorough discussion than that of shop prescribing by the latter. We are well aware that many of the leading pharmacists are ready to deny that the practice is prevalent, but that they are mistaken in such an estimate every physician who has had anything to do with the ordinary run of apothecaries knows to his sorrow. A physician can hardly enter a drug-shop without hearing the proprietor addressed by the title of "Doctor," and solicited for a prescription. Of course there is nothing to do but to comply with the request, and both parties to the transaction are well pleased. The apothecary has a splendid opportunity for selling his medicine at a handsome profit, and the patient is very willing to pay for the same, because he gets his consultation for nothing. We can hardly blame an ignorant patient for failing to make out the distinction between a pharmacist proper and a regularly qualified physician, as he has not yet learned that the two professions are not usually combined in the same individual: but how can we excuse any fair-minded, honorable gentleman for taking advantage of such ignorance?

It is useless to attempt to enumerate the many mistakes that are made by these prescribers, the countless errors in diagnosis, and the worse errors of treatment; but we wish to view the question in the light of ordinary equity to the medical profession. In one of the articles of the code of ethics, which is adopted by all the respectable pharmacists of this city, we would call attention to the following language: "Since the professional training of the pharmacist does not include those branches which enable the physician to diagnose and treat disease, we should, in all practicable cases, decline to give medical advice, and refer the applicant to a regular physician." The strict and honorable interpretation of the spirit of this provision would leave very little to be desired in the shape of a remedy for the evil practices of which we complain. From the facts which are constantly presented to us, we have no hesitation in saying that any such interpretation of the code is an exception to the general rule. Either the majority of the druggists have very slim notions of their obligations in the premises, or there is no power to enforce the necessary discipline. Many of these individuals excuse the practice on the score of its necessity, and in consequence of the surrounding circumstances, over which they have no personal control. They plead in extenuation that they only attempt to advise in ordinary and simple cases, in which a physician would not be consulted: that the medicines administered are harmless, and that if some mixture was not "made up" for the patient a neighboring store would secure the customer. Fallacious as this argument really is, it is the only one which these apothecaries have to offer for encouraging a practice which they know to be wrong, and which they must acknowledge has a tendency, in an almost countless number of ways, of lessening the legitimate profits of the physician, and of destroying his influence in the community.

The position occupied by the druggist is a peculiarly responsible one, not only to the community, but to the medical profession. By the former he is generally looked upon as an adviser, and by the latter as a protector. He abuses both of these trusts when he attempts to prescribe for any who may seek such advice. He may give nothing but simple medicines, but is he, by so doing, conscientiously giving the patient the best possible chance? Is he sure that he may not be losing valuable time, even allowing that he has made a diagnosis of the disease? If the patient does not choose to consult a physician, what responsibility has the pharmacist in the matter? We would be willing to leave the matter at this point as one of conscience with the pharmacist, if our own interests were not too directly concerned. The truth, however, is, that by allowing the pernicious practice to continue, we practically deliver ourselves into the hands of unprincipled men, and, by patronizing them, help to encourage an enemy, who is the more dangerous as his practices are the more underhanded.

If these gentlemen do not find it to their interest to protect us by following the precepts of their own code, is it not time that we look around us for some change, —that we openly discourage our patients from purchasing their medicines of these prescribing shops,—in fact, take every other means to secure ordinary plain dealing. We would like to inquire of some of the right-minded pharmacists throughout the city and country if there is any tribunal to which our profession can appeal for justice in this matter, any power which these "counter doctors" are bound to respect?

OUR WATER SUPPLY.

We regret that the *Herald* of the 3d inst. gave an entire page, with a large map, to a highly sensational article upon the alleged "Nuisances daily contaminating Croton Lake and its Tributaries." Of course, anything which relates to the purity or otherwise of our drinking-water is likely to attract the attention of the citizens of New York, and to be accepted very generally in proportion to the lack of actual knowledge and to the plausibility of the statements. If the facts were as represented it would be cause for general anxiety and alarm, notwithstanding the purification of the water in its forty-mile run to the city. It is well that the profession should know, however, that Croton Lake is well guarded against any contamination from its surroundings; no drains whatever, in the sewer sense of the word, empty into it; hardly an acre of swamp land can be found anywhere on its borders. The map referred to is not less than fifteen or twenty years old, and if, as stated, the Croton Water Department has no better, it has a very inaccurate and imperfect survey of its trust, and should be looked after by the Legislative Committee now looking into the management of our City Departments.

Reports of Societies.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, Nov. 19, 1875.

Dr. E. R. Peaslee, President, in the Chair.

ON CERTAIN POINTS IN CONNECTION WITH THE NERVOUS SYSTEM OF CHILDREN.

Dr. Jacobi, at the close of his remarks made at the last stated meeting, mentioned hysteria as occurring in children, and further stated that hysteria may occur independent of disease of the genital organs. He continued his remarks this evening by directing attention to the connection which exists between these hysterical symptoms and the blood-vessels, and general and local nutrition.

The blood-vessels in their spastic contractions, and it appears to be essentially the same in their dilatations, show a number of symptoms in the young, frequently also in the adult, which appear, in part at least, to have escaped the attention of a number of observers.

We know that influences upon the vaso-motor system will result in either contraction or dilatation of the blood-vessels: the first result, irritation; the later result, paralysis. Whether the latter is positively true cannot be said. When we remember that frequently the so called reflex paralyses are said to be the result of irritation of peripheral parts, it strikes us at once that there is something anomalous in the idea that irritation of one part should result in paralysis by simply reflex influence in a distant part.

From what we now know of paralysis, or dilatation of blood-vessels, the doctor was of the opinion that a large number of the so-called cases of reflex paralysis are susceptible of a much easier explanation.

Now it has been found by German physiologists that dilatation of the blood-vessels is not always the result of paralysis of the corresponding nerve, but that it results also from the irritation of a number of nerves, taking their origin mostly in the spinal cord. That is, the lumen of the vessel is dilated, not in consequence of a paralytic condition, but in consequence of irritation. If this be true, perhaps a number of the so-called reflex paralyses can be better explained than they have been heretofore. The vaso-motor nerves have a peculiar influence upon the entire vascular system or upon a part. Let us imagine that their influence has been exerted upon the blood-vessels of the brain, what is the result? Dilatation of the blood-vessels, stagnation of the circulation, insufficient nutrition, perhaps effusion. The opinion was expressed that a number of cases which are spoken of under the head of intellectual disturbances are nothing but congestion and dilatation of blood-vessels, with effusion.

For instance, the condition which is present at the base of the brain, as in melancholia; also the condition of probable effusion in little children, which we cannot explain, are not the result of local troubles, but are due to the influence exerted upon the vaso-motor system, and nothing else. In such cases probably all our absorbent remedies are of no use, because the original cause will not be removed by them. It is very probable that if we could succeed in stimulating the paralyzed motor nerves, we should be much more successful in the treatment of these cases.

Imagine, again, that such a paralyzing influence takes place upon the vaso-motor nerves supplying the vessels of the spinal cord. What would be the result? General and local dilatation of the blood-vessels. Of such local dilatation a small number of cases are upon record. There is, in consequence, an apparent hyperæmia, a real anæmia of neighboring parts, in consequence of the compression of the smaller blood-vessels, and there will be anomalies of nutrition.

In substantiation of this the following symptoms, developed in cases that fell under the doctor's observation in the German Hospital, were stated.

Two young men, between the ages of 18 and 25, were constipated for some time, suddenly discovered that they were unable to walk as well as usual; were a little heavy in the lower extremities, and all at once were paralyzed in a similar manner with the cases of so-called infantile paralysis. In one case there was tenderness over the spinous processes in the lumbar region. There was a certain debility of the bladder and rectum, but the sphincters were not altogether paralyzed.

One suffered from complete motor paralysis affecting the lower extremities, which lasted for a number of weeks. Both cases recovered under the use of ice to the spine, the internal use of ergot continued for some time, and the bi-daily use of the galvanic current.

There was at no time in their history any increase of temperature, and the doctor was of the opinion that both were cases in which there was present simply an abnormal condition of the blood-vessels of the cord, undoubtedly a dilatation. He also related a similar case occurring in a girl, 10½ years of age, in whom there was nearly complete motor paralysis of the lower extremities, absolutely without fever. Local territories of hyperæmia, especially about the head and face, were frequently seen. More frequently, however, spots of localized anæmia were developed. Perspiration was free upon the spots of local hyperæmia, while the remainder of the limbs were cool and dry. In a number of places local hyperæsthesia was present; generally in the immediate neighborhood of the localized injections. Localities where there was anæsthesia were just as extensive as were the localized hyperæmias, and there were days when the anæsthesia was general.

Local redness could be produced at will upon any part of the body by rubbing, the same as seen in meningitis where it is so frequently attributed to paralysis of the vaso-motor nerves, and considered one of the directly dangerous symptoms of a tubercular meningitis. These spots would remain five or six minutes after being developed. It is true that in a number of instances the same symptom has been found in typhoid fever, in severe cases of pneumonia, but they have been found only in those cases in which the general system is very much reduced, and vaso-motor paralysis has been established.

When lying upon the back the girl could move the legs and thighs to a very limited extent, and could bring them up with a sort of swinging movement.

Another case was related in which local anæsthesia was developed in a boy æt. 14 years. He would swing the leg he wished to move in a half circle. No history of masturbation could be traced. There was slight sensitiveness over the lumbar spines. The case was mentioned for a special reason, namely, because the change in the blood-vessels supposed to be present yielded so directly to the treatment instituted, and the result was a recovery from the hyperæsthesia and anæsthesia, and also from the symptoms of intense abdominal pain and nausea which had troubled him for a long time. Quinine, ergotine, and the continued use of the galvanic current were the measures adopted.

Thus it appears that irregularities in action of the vaso-motor nerves are sufficient to develop a paralysis which will find no explanation in either inflammatory changes affecting the spinal cord, or in any other well-known cause of paralysis. These are results which may follow dilatation of blood-vessels in the brain and spinal cord.

What takes place when we have to deal with paralysis of vaso-motor nerves in the skin? I shall not now speak of *herpes zoster*, which by common consent is regarded as a nervous disease, but shall confine what I have to say to the influence which dilated blood-vessels may have in those cases named URTICARIA AND PEMPHIGUS. Here the doctor referred to the pathology of the two affections, and incidentally remarked that he did not believe pemphigus to be syphilitic in every case. If found in the palm of the hand or sole of the foot it is probably syphilitic. But in a majority of the cases occurring in the new-born, in whom the disease is of most frequent occurrence, it is not syphilitic. Some celebrated authors have denied the occurrence of acute pemphigus. Hebra says that he has not seen a case of acute pemphigus in a million of sick persons, and therefore doubts the diagnosis in those which have been reported.

A case was then related as evidence that pemphigus may occur as a nervous disease. A child, 4 years of age, when first visited by the doctor, had a temperature of 104 or 5° F., a pulse numbering 150 or 160; was delirious, and died the following day. When the attending physician was first called there were present some slight red marks over the face and lower extremities. The next day these spots had enlarged, and were a little darker in color. On the following day some of these red marks were covered with small vesicles, and the fever appeared to increase rather than to diminish. Within twenty-four hours from that time almost the entire body was covered, not with small, but with large vesicles, varying in size from a pin's-head to a bean, or even larger. Diagnosis of pemphigus was made. The child had never had pemphigus before. The surface was in the following condition: There was not a particle of healthy skin over the entire body. Hundreds of vesicles had not been broken, and very many had been ruptured. When the surface was touched the epidermis was removed by the finger. As a consequence much of the surface was unavoidably denuded of its epidermis. The case could not be explained except as being due to some general cause.

The doctor then thought of irritation or paralysis of nerve centres, and studied the previous history of the case. There had been no spasms. There was no history of nervous diseases in the family: no history of neuralgias. But the fact was finally brought out that the child had been an unusual sufferer from urticaria; scarcely a day passing but what he suffered more or less from it; and he could develop an urticarious eruption by scratching at any time. He was probably not free from the urticaria more than two or three days at any one time. The case was then regarded as one of pemphigus developed upon urticaria, and attended by a fatal result.

Another member of the family had *hives* very much. The father of the child had been troubled with hives almost constantly during the year and a half past. A brother of the father complained of hives almost his entire lifetime; but not to such an extent as it had been manifest in the children of this family.

The case was finally regarded as one of acute pemphigus, and dependent upon the action of the vaso-motor system, finally resulting in a general effusion and death.

If this paralysis of blood-vessels takes place in the upper part of the body, and affects the thyroid veins and the veins which supply the orbit, there will be a protrusion of the eye, a swelling of the thyroid gland, and we have developed the disease which has received the name,

EXOPHTHALMIC GOITRE.

The very fact that the symptoms of this disease depend upon disturbances affecting the heart, the thyroid gland, and the eye, distinct parts of the body, is sufficient to incite us to search for some general cause.

Graves' disease, as it is also called, is not always easily diagnosticated. There are cases in which the chief symptoms present are referable to the heart; or there may be heart anomalies with goitre, and but little exophthalmos; or there may be a slight amount of goitre and a good deal of exophthalmos.

The doctor alluded to two cases occurring in children and presenting as well-marked features as in the adult. In one case the goitre was most marked upon the right side, which was regarded as somewhat exceptional, and there was only slight protrusion of the eyes. Iron, digitaline, and ergot were continued for some time, and recovery was complete in both cases. In both cases valvular murmurs were present.

When we assume that the blood-vessels are in this anomalous condition, and remain so for some time, what is the result as far as nutrition goes?

Certain hypertrophies occasionally, or atrophy, must be produced.

Hypertrophy may take place in the following manner: there is hyperæmia, stagnation, effusion, and in consequence of that the neighboring tissues swell, and finally increase.

Clubbed phalanges, with incurved nails, are explained in this manner, and are the direct result of venous stagnation. There are certain cases in which there is a marked unilateral increase of connective tissue, occurring mostly in males. Probably all these cases are to be explained by the presence of anomalies in the circulation. Reference in this connection was made to unilateral atrophy of the face and extremities, principally found in children under fifteen years of age. Most of these cases occur upon the left side of the body. This feature is very probably explained by the fact that the right side of the brain is the feebler one. The right side of the body is stronger than the left, not from habit, but from the natural fact that there is a peculiar arrangement of the blood-vessels which furnishes the left side of the brain with more food. The direct admission of blood through the carotid to the left side of the brain appears to be sufficient reason why it should be more favored than the right, and therefore the right side of the body more developed. It may therefore be alleged as a reason why atrophy is especially apt to be found upon the left side of the body, because the right side of the brain is the less fully supplied with blood, consequently receives less nourishment.

The doctor here referred to a case of a child in which there was atrophy of the entire left side of the body. Perhaps there was an original defect in this case in the right side of the brain; but the left half of the head was smaller than the right. Probably this case could be explained by a difference in the development of the arterial system upon either side. There is a peculiar anatomical point which is of importance while studying these anomalies. The doctor was of the opinion that childhood is more liable to the changes under consideration for the following anatomical reasons: In the embryo the nerve-cells are first developed. This is true both of the brain and spinal cord. These sympathetic cells and ganglia, which are found in the nervous centres, are of the earliest development. In the spinal cord this occurs earliest in the anterior horns.

It may be that the slightest changes in the first development of these parts is of prime importance as affecting the subsequent development of the blood-vessels, consequently influences the nutrition of the several parts to which they are distributed.

Dr. Laws reported a case of unilateral atrophy, discovered in the dissecting-room, in which there was a marked diminution in the size of the right arm as compared with the left, and when the hemispheres of the brain were removed, it was found that the left weighed one ounce less than the right. The immediate explanation was found in the fact that the left carotid was absent. The case was mentioned to illustrate the importance of post-mortem in determining the cause in anomalous cases. It is quite probable that the case referred to, if it had been seen during life, would have been explained upon some other hypothesis.

Dr. A. McL. Hamilton expressed the opinion that perhaps the so-called pseudo-hypertrophic paralysis may be explained by some abnormality in the function of the sympathetic nervous system of the character to which Dr. Jacobi has made reference. Inasmuch as there has not been found any change in the spinal cord to account for this condition, it is not unreasonable to suppose that it may be due to some continued disorder of the functions of the nerves.

It is quite probable that very many nervous diseases, now obscure, will finally be explained upon the basis of disturbances affecting the sympathetic nervous system.

Dr. Jacobi remarked that the hypertrophy of muscles alluded to by Dr. Hamilton should not be placed here. For there is present fatty degeneration, especially of the connective tissue, and the large bulk of the muscle seen is rather apparent, and not so much because there is any additional amount of muscular tissue, as to a change affecting another part; but the muscle is not increased, is not actually stronger.

Dr. Hamilton thought it quite probable that the first changes that occurred—those prior to any perceptible change in the muscle itself—are due to some change affecting the nerves.

Dr. McIlvaine inquired of Dr. Jacobi what the symptoms were in the two cases which he reported as dying from *uræmia* after taking chlorate of potassa.

Dr. Jacobi replied that perhaps he had used the word uræmia unadvisedly, and wished to be understood as saying that his patients had acute nephritis. For what uræmia is we do not know. The symptoms in these cases were, suppression of urine, complete for two days, pain over kidneys, high fever, rapid pulse, gradual diminution of mental and intellectual powers, and finally sopor, deep coma, and death.

Dr. Peaslee asked Dr. Jacobi whether he wished to be understood as saying that a patient who had had suppression of urine for two or three days, and finally died comatose, died from nephritis, or whether he regarded it as death from uræmia?

Dr. Jacobi replied that he should regard it as death from uræmia.

Dr. McIlvaine remarked that he accepted the explanation, but denied the truthfulness of the statement that patients died from uræmia. He did not believe there was any such thing as uræmia.

The remainder of the evening was occupied by the reading of a note upon gout, by Dr. Carroll, and subsequent remarks by Dr. Wm. H. Draper.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 10, 1875.

Dr. F. Delafield, President, in the Chair.

TAPEWORM TREATED BY BALSAM COPAIBA.

Dr. Caro presented a tapeworm fifty-three inches long, which had been expelled from a male patient under somewhat peculiar circumstances. The gentleman had been suffering with symptoms of tapeworm for a number of years, during which time he had made trial of all the usual remedies for their relief. Last September he applied to Dr. C. for the treatment of a gleety discharge. Balsam copaiba was prescribed in large doses (℥ss every four hours until the bowels were freely evacuated). The first dose had the desired effect, and to his surprise the worm was evacuated entire. Dr. C. was not aware that this remedy had ever been used before with such a result.

Dr. Briddon had never failed in the treatment of tapeworm by the use of the ethereal extract of malefern. His usual plan was to administer the black draught, followed for twenty-four hours with nothing but beef tea; then from a drachm to two drachms of *ethereal* extract of malefern, and twelve hours afterwards a dose of castor oil.

CRIMINAL ABORTION—ARE THEBE ANY EVIDENCES OF THE SAME THREE WEEKS AFTER THE OPERATION?

Dr. Finnell exhibited the genitalia of a female aged twenty-five years, who had been the victim of criminal abortion. Finding herself about two months pregnant, she consulted a professional abortionist for relief. He administered several doses of cathartic medicine, without, however, producing the effect which he desired. On the occasion of a subsequent application for relief, instruments were used, when peritonitis developed itself, of which she finally died three weeks afterwards. The autopsy was made at the instance of the coroner. The abdomen was found intensely distended with gas, and a large quantity of sero-purulent matter exuded from the incision in the abdominal walls. The intestines were more or less matted together, and presented other evidences of peritonitis. The uterus was somewhat enlarged, measuring five inches in its long diameter, and four inches in its short diameter. The length of its internal cavity was three and a half inches; the greatest thickness of the walls being one inch. Its weight was three ounces. The remarkable point of the case was, that there were no evidences of abrasion about the cervix, nor any marks of a placental site. The left ovary contained a corpus luteum.

Three of the coroner's jury were medical men. Each was asked to give an opinion as to whether it was possible for instruments to be used in the production of abortion without leaving some marks behind; also whether it was possible for the womb to enlarge from other causes than pregnancy; and finally if it could be said that the woman had died of criminal abortion. The answers were affirmative.

Dr. Briddon asked Dr. Finnell if in his (Dr. F.'s) judgment the uterus had contained an ovum.

Dr. Finnell answered in the affirmative, giving as his reason therefor the enlargement of the organ.

Dr. Briddon—Would you rely on this fact alone? Does not the lining membrane of the organ show some characteristic changes?

Dr. Finnell—There had been time for all these changes to disappear, as death took place three weeks after the instruments were said to have been used.

Dr. Putnam Jacobi's question in regard to the absence of a placental site was answered in the same way.

Dr. Delafield asked if there was any other way of explaining the peritonitis.

Dr. Finnell answered in the negative.

Dr. Delafield thought that the history of the case rendered it tolerably certain, in absence of testimony to the contrary, that the patient had died of peritonitis, the result of criminal abortion.

In answer to a question from Dr. Putnam-Jacobi, Dr. Finnell stated that it was not at all uncommon to find peritonitis following injuries to the uterus without those injuries being evident at the post-mortem.

Dr. Delafield agreed with this statement, and referred to a case in point, in which forcible dilatation of the uterus for the treatment of dysmenorrhœa was followed in the course of a week by peritonitis, and at the autopsy which naturally followed the latter, there were no evidences of uterine lesions.

Dr. Putnam-Jacobi remarked that such a case would apparently give foundation to the theory that the inflammation of the peritoneum was propagated through the uterine lymphatics.

Dr. Delafield thought such a condition of things might be possible, but it was exceedingly hard to prove it.

SCROFULOUS TESTICLE.

Dr. Briddon presented a diseased testicle. In the absence of a minute examination of the structure, he was unable to say whether it was the result of scrofulous degeneration or that of simple orchitis. The history of the case was as follows:

A man thirty-four years old suffered a severe contusion of his testicle two years ago. This accident was followed by acute inflammation, which resulted in suppuration at the end of two or three weeks, and perforation of the walls of the scrotum. A discharge continued in the opening thus formed up to the time of the patient's admission into the Sixty-fourth Street Hospital. His treatment during the two years referred to had been for the most part irregular, and having finally presented himself to one of the dispensaries of this city, he was advised to go to a hospital and have the organ removed. When Dr. Briddon first saw him, he learned that the patient's father and several relatives had died of phthisis. The patient himself had no signs of tuberculous disease, and regarded himself as a tolerably healthy man. His principal annoyance was the intolerably fetid discharge from the scrotal opening. On examination, the right scrotum was filled with a globular mass, which at different parts was adherent to the integument. There were also sinuses communicating with the interior of the organ, and the cord was enlarged, and its component parts matted together.

The operation of extirpation was performed October 31st. On incising the mass, about an ounce of terribly fetid pus was evacuated. There had evidently existed two cavities in the substance of the organ, but these by the destruction of the partition wall had become one, the indirect communication of which with the external opening accounted for the extreme fetor of the discharge.

The Society then went into executive session.

Correspondence.

THE RELATIONS OF MEDICAL MEN TO HOSPITALS.

To the Editor of The Medical Record.

Dear Sir:—Without at all taking sides on the great questions which now agitate the medical profession, and that portion of the public who are interested in the affairs of the Lenox Hospital, I beg leave to say a few words on the subject in general—the relations of medical men to hospitals.

There seems to be no doubt as to the advantage to them of connection with these institutions, and perhaps they do not overrate these advantages. But there is an eagerness and an earnestness in seeking these positions which amount to importunity, and which can hardly fail to put them in a false position with regard to the trustees of the institutions.

This rule is not invariable, but it is too general. There are men who quietly take the places assigned them upon their own merits, but there are many others who are not content to wait for the success which will surely come. The aim of a physician or surgeon ought to be to make himself such a man that the hospital cannot do without him.

Is it not this bowing, not to say bending, to trustees which leads to the speaking of them with regard to the managers of a hospital as "subordinates"? Can any self-respecting man take a place where he is held to be a dependent and inferior, subject to the will or dictation of men who know nothing of his profession, and have slender means of judging of him? Have not doctors brought some of these things upon themselves?

On the other hand, the trustees of a hospital need to remember that the success of the institution depends upon its doctors; they are utterly helpless unless they have good physicians and surgeons. The mere M.D. is nothing: it is the skill and reputation.

And the whole public might safely amend its way of looking at doctors. They are too often sent for, and called upon, at all times and seasons, with less regard to their comfort than would be shown to a servant. Still, that is what they expect, we are told, and they make up their minds to have no life of their own. But it is unfortunate for them and their profession when, in their eagerness for place or business, they forfeit their self-respect. A Looker-on.

* * *

Dr. E. R. PULLING'S FUNIS CLAMP.

To the Editor of The Medical Record.

Sir:—Some discussion has arisen over my "funis clamp," described in No. 245 of the Record, and also on the general subject of ligation of the umbilical cord. I take the first opportunity which has occurred since the appearance of Dr. Bayles' second communication (on Oct. 23d), to give my reasons for preferring the special mode of compressing the funis which I recommended, and the particular form of safety clamp which I adopted. Such an explanation would have accompanied my former article, but its necessity only became apparent to me after reading the correspondence of Drs. Bayles and Rose in Nos. 251, 257, and 259.

I cannot ignore the importance of a subject which at first perhaps seems almost trivial, while I am conscious that a certain number of new-born infants (I am afraid to guess how many) perish annually from hemorrhage resulting from imperfectly secured umbilical vessels. Of course, such accidents occurring after the careful application of the time-honored ligature of twine are rare, arising only in cases where the blood remains fluid, after the ligatures become loose and expose the pervious vessels to the full force of the heart's action. To meet the requirements of these exceptional cases we need a compressing agent competent to withstand this force. Its efficiency may be tested by applying it to a funis, the vessels of which are artificially distended with fluid, under a pressure greater than that of the blood in the arteries. It must stand this crucial test or it is worse than useless, inspiring false confidence and leading to neglect of watchful precaution. We test it, as the strength of a bridge is tested, beyond its probable requirements. Moreover, to attain perfect security we must employ it in all cases, since we cannot be quite certain beforehand whether we have a hemorrhagic condition to deal with.

Before adopting the safety clamp formerly described, I made careful and repeated experiments to ascertain the degree of compression required to render the vessels of the cord impervious *and to keep them so*, when subjected to distention by a column of fluid representing the maximum of the cardiac contractions. A section of fresh funis, having its vessels well washed out, was enclosed at one end by the clamp or ligature to be tested; in the vessels at the opposite end were secured small nozzles, which communicated with rubber tubes, which in turn were connected with a movable reservoir capable of being raised to the height of ten feet above the experimental section of cord, and this was subjected to the pressure of these columns of water for six hours. As the result of experiments like the foregoing, I found that I could obtain the requisite conditions of security and simplicity by using a clamp with flat surfaces half an inch wide, which, when in contact, gave a pressure of not less than four pounds avoirdupois, and which allowed a separation in the centre of one-third of an inch without unlocking. I further ascertained that the amount of force with which these surfaces must be approximated in order to render the vessels impermeable under the pressure used, must always be sufficient to cause the rapid and complete expulsion of the gelatine of the cord from the constricted portion, leaving nothing but its coverings and its vessels—an aggregate thickness usually no greater than that of writing paper. Removing the clamp and pressing this portion into a cylinder, its diameter is sometimes found to be less than two millimetres. The impossibility of exerting effective pressure on so small an object with rubber rings is obvious. When they were substituted for the clamp in some recent experiments, applied as recommended by Dr. Bayles and rendered as secure as possible, I found that only two out of five resisted a pressure of ten feet of water more than a few seconds, and in them the vessels became permeable in less than a quarter of an hour. Even under five feet, none were controlled for an hour, the latter pressure being, I suppose, less than the ordinary force of the heart.

I do not deny that these rings will *generally* answer well enough, and so will an ordinary string. So will divulsing the cord, or pinching its severed end for a short time, till coagula form and become fixed in the vessels. Fifteen minutes' compression is usually enough to prevent hemorrhage, all subsequent constriction being dispensed with. So firm is the clot formed, even during the few minutes intervening between birth and division of the funis, that we frequently find it difficult to wash out the vessels of a short section of it by injecting them immediately afterwards.

The funis commonly receives less than an hour's constriction, for if the ordinary ligatures be examined at the end of this period, more than half of them will be found loose enough to permit the escape of fluid. In most mammals the cord is rendered secure by being broken, and it is interesting to know that this is the usual result of its divulsion in man. The vessels retract within the Whartonian gelatine which covers their orifices, and appears to facilitate the formation of a clot, the blood generally coagulating quickly when brought in contact with it. I may remark, that I base this conclusion chiefly on experiments which I made in the New York Lying-in Asylum, during 1854, at the suggestion of my predecessor, the late Dr. George T. Elliot.

With all deference to Drs. Bayles and Rose, both appear to have ignored the only valid reason that I know of for ligating the placental end of the funis—that is, the possible existence of a second fœtus connected with the first through a single placenta, to which the two cords, connected by anastomosing vessels, are attached. Of course, the "*tactus eruditus*," which "we veterans" of the profession acquire, enables us instantly to detect the presence or absence of a twin *in utero*. Even our professional glance, falling on the new-born infant, tells us whether in has a fellow; but let us not forget the lessons of caution, which I hope Alma Mater impresses on the younger, as she has done on the elder members of our profession, and which have sometimes been useful in the days when our faces, like our diplomas, were fresh and unwrinkled.

During the first two years of my practice, my blind adhesion to the rule of ligating the placental end of the funis, without waiting to ascertain its actual necessity, possibly saved two lives; for, in two cases the umbilical vessels of twins, attached to a single placenta, anastomosed so freely, that water injected into the vein of one cord escaped by a full stream by that of the other. Even now I usually secure the placental end of the cord until I have leisure to examine the womb carefully, after which I make an incision above the ligature, and let the blood escape. A few ounces, more or less, of fluid in the bed can surely be of little consequence: but those who, with one of my critics, think otherwise, may easily receive the flow from the funis, in a vessel kept in every well-regulated bed-chamber, prior to depositing the secundines in the same receptacle. Ezra R. Pulling, M.D.

VETERINARY MEDICINE.

To the Editor of The Medical Record.

Dear Sir:—As I am a constant reader of your valuable journal, and oftentimes receive valuable suggestions from its pages, I now take the liberty of offering you a few lines, not so much in defence, probably, as to bring the subject up for thought. Under the superscription of *Unsuccessful Practitioners*, several letters have been written for and against Diploma's views or experience. The letter which I wish to call your attention to is in answer to M. D. V. S.

This gentleman, probably without *malice*, and undoubtedly without any knowledge of his subject, has written a letter in condemnation of the very principles he intends to uphold. I fully concur in his ideas relative to the diversity of ways in the dispensation of medical knowledge; at the same time I cannot concur in his remarks relative to veterinary medicine.

Nor can I understand why he ignores veterinary medicine. Is it not a science? Are not its principles common with those of any other specialty of medicine. Does he ignore oculists, surgeons, or obstetricians? They are specialists, yet have common principles, and hence are inseparable. It is not from personal feelings alone that I make these remarks (though I have probably more cause for being *insulted* than he had from M. D. V. S.'s letter); but, because I feel the want of professional appreciation by those who should know its value most. Every man who chooses *medicine* as a *profession* should not refuse to acknowledge its principles wherever seen. It is impossible for any one mind to compass all *that* is known or will be known relative to medicine; consequently, as a natural result we have what are known as *specialties*. But as the great principles of medicine are common to these specialties it is impossible to isolate them. *Veterinary medicine* is as much a *specialty* of general *medicine* as obstetrics is, and inseparably so, since anatomy and physiology are their common parents; and since the *laws* of health and disease are common to the animal *bodies*, why should not *therapeutics* be also? or, why more so in one than another?

It has always been my great pride to obtain medical knowledge wherever and by any means I could. Though it is impossible for me to practise *all the specialties*, I fully appreciate the great accumulation of knowledge therefrom, and the cultivation of which conduces to the one *great object*, the *progress* of *medicine*. Render unto Cæsar the things which are Cæsars.

Most respectfully, V. S.

To the Editor of The Medical Record.

Sir:—When in my letter, published in the Record, I advised Diploma to become a veterinarian, I never dreamt that it could give "such a shock" to your correspondent, E. N. R. O., etc., etc., and raise his furore to such a point as to make him issue such a long complaint against all specialties of medicine.

Since the publication of his letter I have looked for other expressions of the views of members of the profession, but none have made their appearance; and I think I can say that even with his "degree," it is remarkable that he seems to be the only one who views my letter as he did.

Such being the case, I might, taking the letter for whence it comes from, let the subject drop; but though I do not wish to open a controversy, I feel in duty bound for the welfare of my profession to answer *once for all*.

I would first ask from your correspondent if he has read that "shocking" letter of mine, and if so where has he seen that I recommend Diploma to become a "horse-doctor"? Does E. N. R. O., etc., etc., know the difference between the veterinarian and the horse-doctor; or does he judge them only by those with which he has come in contact? It is true that the veterinary surgeon must be a horse-doctor as well as a cow-doctor; but let me tell him that the latter cannot be the former, and for his special benefit allow me to inform him of what scientific studies the curriculum of veterinary learnings consist.

In all veterinary schools of Europe, if he will permit me to take them as guides, the students of that specialty have to study anatomy, physiology, chemistry, physics, pathology, surgery, obstetrics, pharmacy, therapeutics, hygiene, botany, zoology, jurisprudence, sanitary medicine; and the special branches of medicine do not apply to only one species of living beings, but to all the domestic animals; that is, to several different forms of organism.

Again, which is the most difficult, which of the two requires the closest attention and observation of the physician, who has to deal with a patient who can speak, who can tell his sufferings, and describe his symptoms, or of the veterinarian who has to make his diagnosis before what we might call a deaf and dumb brute. Let him remember that in the practice of the diseases of children or of invalids how often he has been placed in the veterinarian's position, and how often he has been puzzled, though he was aided by what information he could obtain from an anxious mother or from a watchful nurse.

No, Mr. Editor, E. N. R. O., etc., etc., has not taken all these facts into consideration—he did not know them. The time is yet for him when the "honor of belonging to a learned profession" was represented by a serious face, a long and heavy white wig, a heavy long cane, and a pair of spectacles on the nose to crown the likeness; and for him beyond his title of doctor medicinæ there is nothing.

What, to speak of our days, men like Bouley, Reynal, Lafosse, Colin, Chiauveau, who are members of the Academy of Medicine, of the Academy of Sciences of Paris; men like Williams, Gamgee, Spooner, Simonds; like Guret, Gerlack, and hundred of others, would dare to put themselves on his level. No; stand back, all of you; stand back, you are nothing but "horse-doctors"—your works, your writings are nothing. E. N. R. O., etc., etc., is yet living, and you are insulting him in considering him a brother practitioner, your equal.

Begging your pardon, and that of your readers, for such a long answer, I remain, dear sir.

Yours truly,
M. D. V. S.

PUERPERAL FEVER.

The following letter was addressed to Prof. Fordyce Barker, of this city, and will explain itself:

Dear Doctor:—Pardon me for addressing you, but, having just read the remarks made by you before the New York County Medical Society upon Dr. Lusk's paper upon Puerperal Fever, I cannot resist the temptation.

During the winter of 1842–3 a very malignant form of erysipelas prevailed through the eastern and southern towns of this great county, but none in the northern or western towns. I had a brother who contracted it by attending a lady who had a premature labor, and who died of puerperal fever. The child had erysipelas and died. My brother did not die, but he was confined to his room for six months, and did not fully recover for more than a year. In the early spring of 1843 I removed from the west part of the county, where there was no erysipelas, to the east part (Potsdam), where the epidemic had prevailed to a fearful extent, and was still prevailing. During my six months' experience with this epidemic erysipelas more than fifty per cent. of confinements at full time were followed by puerperal fever, and of these more than fifty per cent. died. If a pregnant female was attacked with the erysipelas in any form, she was sure to miscarry and as sure to die. So palpable was this fact, and plain to laymen, that marriages that were contemplated and arranged for among the intelligent class, were indefinitely postponed, and were not consummated for more than a year after the epidemic had passed over.

Respectfully yours,
B. F. Sherman.

Ogdensburg, St. Lawrence Co., *Nov.* 5, 1875.

INUNCTION.

To the Editor of The Medical Record.

Sir:—In an article on "Inunction" in your issue of the 30th ult., I notice that Dr. Angel attributes almost as much efficacy to the rubbing as to the substance used. Without doubt both are important, but I believe the greater benefit is derived from the nutrient qualities of the oil or unguent employed. I am convinced, from observation, that cod-liver oil is rapidly absorbed when it is thoroughly rubbed into the skin, especially if it is used immediately after a warm bath, or combined with chloroform, which materially aids in the absorption of any fatty matter. One of the worst cases of marasmus I ever saw—in which recovery was deemed hopeless—was restored to health by the frequent inunction of cod-liver oil, without a particle of medicine being given by the mouth.

In cholera infantum I have repeatedly seen its good effects in relieving the vomiting and diarrhœa, and I have no doubt that in the treatment of fevers, and of the exanthemata, it will prove a most potent agent for good.

The disagreeable odor of cod oil, and the tendency to rancidity in most animal and vegetable fats are, of course, objectionable, hence the superiority of vasoline; but in the oil of benne, expressed from the seeds of the sesamum indicum, will be found all the necessary qualities for inunction, as it is *nutrient, bland, inodorous, absorbable, free from gumminess*, and if benzoated or mixed with chloroform it will not become rancid from the heat of the body, nor from age or exposure.

C. J. Cleborne, M.D.

Kittery, Me., *Nov.* 6, 1875.

SEVERE INJURIES DURING PREGNANCY.

To the Editor of The Medical Record.

Sir:—A remarkable case of gestation occurred recently in my practice at 224 E. 19th Street. Mrs. K——, a German, aged 25 years, is of small frame, the mother of a child now two years old; has always enjoyed good health. On the evening of the 13th of August the patient was drawing in a line of wet garments, when it broke, precipitating her backwards into the yard, a distance of twenty-five feet, against a bluestone pavement, and striking on her left os calcis and right patella. I saw her a few minutes afterwards and found her recovering from the shock, with slight contusions. Ordered a sedative mixture and evaporating lotion. She was able to go about again in a few days, with only a soreness around the ankle. At the time of the fall she was in her seventh month of gestation. No unfavorable symptoms appeared, and on the 8th of October she was delivered of a vigorous boy, being sixty-one days from date of accident.

G. W. Frion, M.D.

345 E. 17th Street.

INDEPENDENCE IN MEDICAL TEACHING.

To the Editor of The Medical Record.

Sir:—Will you oblige me by informing A. M. D., through your columns, that the statements in his article in The Record of Nov. 13, that "about one hundred ambitious physicians and surgeons of New York and Philadelphia, and half the same number in Boston, manage our Colleges for their profit, and a thousand or two others in the same cities calmly look on and are daily humiliated;" and that "it is easier to secure a diploma from the best medical college in the States than to learn to make a panel-door, etc.," are incorrect, so far as they concern one of the cities and colleges therein named.

There is a medical college in this country where the professors are paid fixed salaries only, and have no management of its finances and no direct interest in the amount or number of fees received from students; where the policy is to make the best and not the most doctors; where a systematic course of education is followed; where a student cannot even enter the second year until he has passed his examinations upon the studies of the first, nor gain his degree without passing in every one of the eleven required branches; where examinations are all conducted in writing, and judged without knowledge of personal relationship; where the examination papers are yearly published and distributed for the inspection of the profession; and finally, where, after another year, no student will be admitted unless he be a college graduate or pass a preliminary examination.

Harvard.

Boston, *November* 19, 1875.

OUTWARD DISLOCATION OF FOREARM.

To the Editor of The Medical Record.

Dear Sir:—In addition to the cases of this injury reported by Dr. Andrews, of Bellevue, recently, and Dr. Varick, of Jersey City, in 1867, I desire to report a case in my practice. In June last a young man, aged 19 years, while playing at base-ball, fell and produced a complete dislocation of the left forearm outwards. He came to my office, and without assistance I reduced the dislocation, and the case did well. I had a similar case about the year 1868 or 1869.

Very respectfully,
A. B. Brumbaugh, M.D.

Huntingdon, Pa., *Oct.* 25, 1875.

The American Academy of Dental Surgery, of which Dr. Geo. H. Perrine, of this city, is the President, is in a very flourishing condition. Its meetings are held every month at the College of Physicians and Surgeons, and the papers presented are of great interest to the dentists.

THE PRESBYTERIAN HOSPITAL AFFAIR—A REPLY TO "CITIZEN."

To the Editor of The Medical Record.

Dear Sir:—Will you kindly accord me a little space in your journal for the purpose of correcting sundry misstatements made by "Citizen" in your issue of December 4, 1875, No. 265.

"Citizen," in the first place, misconceives the object of the meeting, which he so pompously declares to be "simply ridiculous," and to which opinion, of course, he is perfectly welcome. Had he adopted the very simple, and what at first sight would seem the fairest plan, of waiting until the object of the meeting had been officially expressed, he would have saved himself from making the two blunders (to give it no worse name) into which he has fallen. But perhaps that would have been too much like fair play, and that would never have done.

In the first place, "Citizen" writes, "furthermore, any publicity that has been or may be given to the affair is due exclusively to the fact that the four gentlemen dropped, and their indiscreet friends, are trying to make a mere *private grief* a matter of *public notoriety*." (The italics are mine.) Had he waited only four days, he would have learned that "an affront had been offered to the profession, and physicians were not concerned with the persons who offered, or to whom was offered, the affront. It was for the defence of a certain principle that they had come together, and they should not let personal grievances influence them."—*Extract from the President's* (*Dr. Markoe's*) *Speech.*

Dr. Thomas in his speech reaffirmed the same sentiment, and, if anything, made it still more marked. He said, "You have all heard the exciting cause of this meeting, and let no one suppose that the large body of medical men before me now has been convened for the purpose of taking cognizance of the wrongs of a certain member of the profession. Far from it. He who imagines this, misconceives the object of the meeting, and belittles that object. A principle which interests our profession is at stake." Can language be plainer? In view of this declaration, what becomes of the charge of "trying to make a private grief a matter of public notoriety"?

Blunder No. 2.—After "Citizen" has uttered his bombastic opinion, that the call for the mass meeting of the medical profession is "simply ridiculous," he asks, "What right has the medical profession to dictate to the managers of this or any other hospital who their appointees shall be." No legal right, "Citizen," has as yet been claimed by the "medical profession," so far as is known to the writer, and certainly not by the medical staff of the Presbyterian Hospital; for in the protest which six of the said staff signed, occurs this significant phrase, "We do not propose to question for a moment your legal right to elect to positions whomsoever you may think proper," etc.

Isn't "Citizen's" conundrum sufficiently answered?

At the beginning of his letter "Citizen" starts off with a perversion of statement, viz.: "I notice in your valuable paper of date of November 27, 1875, No. 265,* two articles—one a communication from an ex-appointee of the Presbyterian Hospital, the other a call for a mass meeting of the medical profession of the city of New York—the burden of the complaint being an alleged act of injustice done to certain medical gentlemen, through the failure of the board of managers to reappoint them on the medical staff of the hospital."

Let us first take up the last of the statements, or rather misstatements, advanced. Had "Citizen" read "the call for a mass meeting" with ordinary care and attention he would have seen that not one word is said about "injustice" done to any one. That is a gratuitous assumption on "Citizen's" part, unsupported by any evidence so far as the wording of the "call" goes. This reads thus: "The members of the medical profession of the city of New York, who believe that the recent action of the Board of Managers of the Presbyterian Hospital, in the matter of failing to reappoint certain members of the medical staff, against whom no charges were preferred, is injurious to the hospitals in their beneficent work, are invited to meet at the theatre of the Union League Club, Tuesday evening, Nov. 30, at 8 o'clock, to give public expression to their views." Here follow the names.

Can "Citizen" find one word in the above about "injustice" by any one to any body?

The second article, viz., the "communication of an ex-appointee," is, in common with the other facts, distorted and warped to suit the views entertained by "Citizen." The object of the "ex-appointee," as "Citizen" so genially and politely styles Dr. Ward, who wrote the "communication," and whose name is signed thereto, was to correct "in the minds of some of your readers certain impressions which I know to be erroneous." And in but *one* place does the word "injustice" occur, and that in the following clause:

"At the June meeting of the board of managers, Drs. Peters, Allin, Stimson, Woodruff, and myself resigned our positions on the ground that an act of great injustice had been done to four of our former colleagues, in that they were 'dropped' without cause," etc.

Dr. Ward is certainly to be congratulated upon the success with which he has corrected erroneous impressions in the mind of *one citizen*, at least.

Upon page 814, not content, apparently, with his ingenious fictions, "Citizen" proceeds gravely to inform us that, "referring to the two articles in question, the burden of their complaint seems to be that four members of the medical staff were unjustly punished for voting for the man of their choice for the position of president of the medical board."

The "two articles in question" are "the call for a mass meeting," and the "communication from an ex-appointee." In the first one no allusion can be found to unjust punishment of any man or men "for voting for the man of their choice" for any position. I would recommend "Citizen" to search that call diligently. With regard to the second article, there is mention of such a thing, but couched in such language as to convey the idea (and as such intended, I believe), that to suppose for a moment the real reason of dropping these men was because they voted "for the man of their choice" was absurd, and I am surprised that this rendering of the sentence should have escaped "Citizen's" acute mind. However, to give the full force of the sentence I must quote the paragraph entire from Dr. Ward's letter:

"At the regular meeting of the medical board in May, 1874, the ballot for president resulted in the election of a gentleman who had never before held the office. It has been stated that the board of managers were 'fairly incensed' at such independent conduct on the part of its medical staff. It would seem that such a statement must be greatly exaggerated, and I have heard it denied by more than one member of the board. Article 3, Section II., of the Rules and Regulations of the Hospital provides, that

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* By the way, the number is 264, not 265. This is noted merely to point out how thoroughly in keeping the whole article is: inaccurate even to minutiæ.

'the medical board, ... at the first regular meeting, in May of each year, shall elect a president, vice-president,' etc. Each of your readers can decide for himself whether voting for the man of his choice is an offence for which he ought to be punished by being 'dropped' from the staff of a hospital."

"Citizen" admits that the medical staff had a "formal right" to elect their own president, "but," he asks, "had they the moral right?" He says that "Mr. Lenox earnestly wished and expected Dr. White to be continued in the position of President of the Medical Board," and goes on to state that "without reference to the capacity or superiority of Dr. White or his successor, one would naturally suppose that a decent regard for Mr. Lenox, as founder and patron of the hospital, and the man of all others whose wishes should be respected, would have induced the medical board, before dropping the man of Mr. Lenox's choice, to give some notice of their intention and their reasons for dropping him, and then give *him* the chance (which they claim for themselves) to resign if he wished so to do, or to have a hearing (as they claim they should have had)."

Here is a point which medical men would do well to think seriously upon. It is evidently expected that medical men shall have no "moral right" to elect as presiding officer any member of their boards except those who are pointed out as desirable to the lay board of managers. What, pray, would the non-medical board of managers of this hospital have thought if the medical men of the staff had expressed a wish that some one else should be elected president of their board than the present incumbent? "Citizen's" assertion that this was "the burden of their complaint" in the two articles is as flimsy as it is impertinent.

But, Mr. Editor, I have taken up as much space in your journal as I feel I ought, and in closing permit me to express a doubt, not unreasonable, I trust, that a board of managers which so conducts its business as to alienate from its hospital not only the larger part of its medical non-professional staff, but a respectable minority of its board, can hardly be said to "have the best interests of the institution in view," or to be "the proper parties to decide on all matters pertaining to the management of the institution."

Yours very sincerely,

FREDERICK R. STURGIS, M.D.

NEW YORK, *December* 5, 1875.

HOMŒOPATHY IN THE UNIVERSITY OF MICHIGAN.

A NOTE FROM PROF. PALMER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your journal just received, I find the following editorial statement:

"In answer to an inquiry of some of the students of the Medical Department of the Michigan University, Prof. Palmer is reported to have said in substance: 'With Dr. Sager it was a question of only two hundred dollars, while with us (the Faculty) it was a question of eighteen hundred dollars.'"

This report is entirely *false* in substance and in semblance, no such statement having been made by me as reported to you; and I ask for this explicit denial in your columns

Yours truly, A. B. PALMER.

UNIVERSITY OF MICHIGAN, *Dec.* 3, 1875.

—We made the statement in the full belief of its absolute authenticity. We have asked our informant for further proof, and until such arrives we willingly incline to the opinion that he has been mistaken in regard to the fact. In any event as a matter of justice to Prof. Palmer, we publish his denial without further delay. G. F. S.

Medical Items and News.

THE LATE DR. E. KRACKOWIZER.—At the meeting of the New York Medical Journal Association the following was unanimously adopted:

Resolved, That we are deeply grieved at the death of our fellow, Dr. Ernest Krackowizer.

Dr. Krackowizer was in many respects a remarkable man. Endowed with more than ordinary natural talents, he had, by diligent study and with the aid of excellent opportunities, made himself one of the most advanced medical scholars of the country and of the age in which he lived. He was a man, also, of great practical tact and skill, of excellent judgment—always cautious and considerate, and yet possessed of sufficient courage and self-reliance for the greatest emergencies. He was withal modest, and this was the virtue which shone most conspicuously in his crown of diamonds, and which secured to him the love of all who knew him.

We feel his loss; and we tender to his family and to all who have been intimately related to, or associated with him, our profound sympathies.

Committee—Frank H. Hamilton, E. Noeggerath, H. F. Gulcke, H. Althoff, A. C. Post, Gurdon Buck.

PROF. JAMES H. ARMSBY, M.D., of Albany, died suddenly, Dec. 3, of pulmonary apoplexy. He was born in Sutton, Worcester Co., Mass., Dec. 31, 1809. His early education was derived from the public school of his native town. In 1830 he entered the office of the late Prof. March, of Albany, and in 1832 was made the Resident Physician of the Cholera Hospital, and made the first autopsy in that institution. While yet a student, he conceived the idea of the establishment of a hospital and medical college in Albany, and so successfully devoted his future energies in that direction, that they both became, principally through his instrumentality, accomplished facts. He graduated in medicine at the Vermont Academy of Medicine in 1833, after which, in connection with his preceptor, he established a private medical school, which school was continued until the foundation of the medical college in which he took so active a part. In 1861 he was appointed U. S. Consul at Naples, a position which he creditably filled. While there he delivered popular scientific lectures, a practice which he continued with marked success after his return home. He received the honorary degree of A.M. from the Rochester University in 1836, and from Rutgers College in 1841. Prof. Armsby was married in 1841 to Anna L. Hawley, by whom he had a son and daughter. The wife and daughter died in 1846, and six years later the doctor married Miss Sarah Winne. She and one son, Gideon, survive him. From the foundation of the Albany Medical College until his death he was actively engaged as a teacher of Anatomy and Clinical Surgery. In both these departments he was signally successful, and the institution which he so long and so faithfully served will miss his disinterested zeal in its welfare, and his wise counsels in its management.

Original Communications.

BACTERIA: THEIR NATURE, AND RELATION TO DISEASE.

By THOMAS E. SATTERTHWAITE, M.D.,

SURGEON TO THE DEMILT DISPENSARY, ETC.

(A portion of this paper was read before the Medical Society of the County of New York, Nov. 22, 1875.)

PART I.

THERE is probably no medical question of the day that has attracted more general interest than that relating to the connection between certain minute organisms and disease—a subject upon which much labor has been expended and much has been written. It is the importance of such a question that has led to its being so closely scrutinized, since it forms the basis of one of the most complete theories that has ever been advanced to account for the origin and spread of certain diseases; and there is no doubt that if the relation of these minute bodies can be shown to be a *causal* one, our methods of treatment will have gained very much in simplicity and directness.

There is such a wonderful seductiveness in feeling that we have discovered the actual cause of disease, that we cannot but understand the enthusiasm with which the theory of a *contagium vivum seu animatum* has spread, and that its advocates have been numbered among the most prominent men of the day. Once having securely established such a doctrine, the practice of medicine will be many steps nearer to an exact science, for the nature and habits of the noxious principle being known, we may seek to eradicate it or render it inert, just as a chemist sets himself to eliminate or neutralize a known chemical substance.

But it has been our ignorance of just these first principles of diseased action that has been our stumbling-block for generations; for we cannot but confess, however unpleasant a reflection it may be upon us as a profession, that our progress has been very slow in this direction. Even in the most marked forms of such diseases as we know are propagated by a powerful poison of great endurance and power of multiplication, we have in comparatively few instances ascertained what the agent really is. There has, indeed, been no lack of theories to make up for such discrepancies in our knowledge; but most, if not all, have failed to produce any proof that has been accepted as completely satisfactory.

In saying this, however, it is not designed to infer that *no* progress has been made, for it is quite evident that we are gradually getting nearer and nearer to the real source of disease; and though we have often failed to find it, we have sometimes succeeded in showing the conditions under which it lives and thrives. This may be said of typhoid fever; for the researches of recent date have seemed to show conclusively that *foul drinking-water* and *the exhalations* from *privies* and *sewers*, or *their connections*, are the principal agencies by which the disease is spread.

That the real poison in all such infective diseases may be a living one, has at all times been a favorite idea; but whether, to use precise terms, living bodies hold the same relation to the diseases in question, as a certain fungous plant does to favus, or the itch-mite to the itch-disease, is a question that has exhibited uncommon difficulties in its solution. It is to investigations on these and kindred points that we invite inquiry.

How far back the attempt was made to get at the truth of these matters, we do not know; but we are told by Liebermeister that some of the early Roman authors[*] thought that malarial diseases were due to low organisms which in some way gained admittance into the system. But all of the old theories, whether merely wild and fanciful, or chancing to have a color of reality, were wholly without direct evidence in their favor, since their authors were without the necessary means for deciding such questions.

When, however, the microscope was discovered, there was a new turn in these matters, for it was soon afterwards shown by Leuwenhoek,[†] that such minute bodies as spermatozoa were to be found in the body, and so it was easy to see that other minute bodies might also circulate there. This idea received further confirmation from the experiments of Pasteur, who showed that fermentation was characterized by the growth and development of certain fungi, which had previously been known to exist in fermenting fluids, and which Pasteur affirmed were the essential factors in the production of fermentation.

With these definite notions as to the cause of fermentation, propounded by so brilliant an experimentalist, it was comparatively easy to assume that the processes of disease, which in so many respects, as to their period of incubation, rapid development, and often sudden decline, resemble the fermentation process, might also be produced by some such agents. This may serve to explain the origin of the term *zymotic*, or fermentative, the terms being interchangeable as applied to disease; the unknown agents were then, for similar reasons, called *ferments.*

It cannot be said, however, that the term *zymotic* has had anything but a very general application, for its precise limits have never been agreed upon. It came into use, however, with its companion *ferment*, as a convenient term to express conditions that were different in different minds, and in no case had any strong evidence as to their exact nature. By some, ferments have been regarded as independent organisms, with a life and existence separate and distinct from the body they were supposed to infect; by others, substances possibly of an inorganic nature; while by others again they have been held to be minute particles carried over from the diseased body to the one which was to be infected.

But the theory of independent organisms fell into disrepute when it was claimed by its zealous advocates that nearly every "catching" disease is due to a special organism. We may truly say that the theories as to the cause of malarial fevers, syphilis, and others we might mention, so far as they were claimed to be due to certain microscopic bodies, could not stand the close scrutiny which such subjects demand; for it was shown in such cases that the alleged bodies to be found in the contaminated blood were also present in the blood of healthy persons, if the bodies were not altogether an optical illusion. The alleged discoveries also of Hallier, a botanist of Jena, were proved to rest upon an equally insecure foundation; for while it might be admitted that he really found such bodies as he describes and represents in the instances he mentions, he does not show that he submitted them to a very necessary test: the successful inoculation of each and every form upon healthy subjects.[‡]

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[*] Varro and Columella, Cyclopæd. of the Pract. of Med., vol.

[†] Loc. cit.

[‡] Sanderson, British Med. Journal, February 13, 1875.

While, therefore, these general doctrines have been received with distrust by many of those who have made these subjects matters of special inquiry, there still remained, and do still remain, a number of facts going to show that organisms of minute size may actually cause disease of themselves; for it has come to be settled that some diseases at least are due to minute animals, such, for example, as *scabies* and *trichinosis*, for the diseases in question can be produced by the introduction of these animals into the system, and, in the case of scabies, arrested by such means as kill the parasite.

So also botanists have come to an agreement that the silkworm disease is due to a special microscopic plant, while the epidemic diseases of cultivated plants, such as the potato disease or murrain, and the grape-vine disease, are also due to growths of an analogous nature.[*] The same thing may be said in skin disease, for dermatologists are agreed that favus is due to a microscopic plant, and so, perhaps, of a large number of other skin diseases.

While, therefore, these facts rest upon a pretty secure foundation, we may safely say that in most of the epidemic diseases of man it has either been found that they exhibit in their lesions no specific organisms, or that at least they are not to be distinguished from those that are found under other circumstances. The majority of opinions has, therefore, been unfavorable to this *germ theory*, as it is called, and though here and there it has been maintained with some degree of force, public attention was not riveted on the precise points at issue until the researches of Chauveau,[†] Sanderson,[‡] Bastian,[§] Panum,[‖] Billroth,[¶] and Hiller[**] came to be generally known. All of these observers admit that certain diseases are associated in their lesions with the presence of low organisms, and some of them (Chauveau, Sanderson) have shown that the relation is such a close one as to lead to the conclusion that they have to do with the cause of the disease. Are they, of course, a *necessary* cause, which is capable of the kind of demonstration that will place the matter beyond cavil? This, indeed, is the trying point of the controversy, and almost innumerable experiments have been made, though, we must admit, with conflicting results. There is no doubt that the matter presents extreme difficulties, some of which appear to be insurmountable; for it is not only requisite to have instruments of great power, but often an extreme delicacy of manipulation to be able to separate these minute substances completely from their combinations.

It will be the chief object of this paper to review some of the most important evidence that has been brought forward both for and against the "germ theory," and to record some experiments that have been done to throw light upon certain points in dispute.

We shall endeavor, first, however, to formulate what is known about the bodies alleged to constitute the *materies morbi*—their form, structure, habitat, mode of life, and development. It may be as well to previse that they are all microscopic in size—some, indeed, so minute that it requires the highest powers of the microscope in common use to make them out with any degree of distinctness. It may also be said that the diseases to which they are related are all of the kind that may in a general way be called *infective*, using the term in its broad sense—that is, such diseases as are either propagated by direct contact, or through the medium of the air, various gases, fluids, or common objects.

These bodies have recently come to be called *bacteria*, but they are not all rod-shaped, as the name[*] would imply. The name merely denotes the commonest of the forms that are met with. Bacteria are classed either as round or oval, or of dumb-bell form, rod-shaped or filamentous. They may be arranged in couples or in chains, in balls or in plates, or laminæ. Some authors have described a great number of forms, but the classifications of Cohn and Billroth[†] are those that are generally accepted. That of the latter is somewhat the most complete, though, as will be seen, it embraces forms that are not met with in disease, but merely in fluids that have undergone various changes, so that, practically speaking, all of these bodies do not concern us.

To the round bodies Billroth gives the name "*coccos*," from the Greek, meaning a berry. His *micrococcos*, the smallest form, he finds only in putrid blood; the *mesococcos*, a larger spheroid, he finds in sour milk when it is not too old; the *megacoccos*, or largest spheroid, is found in concentrated meat infusions during the first 24–48 hours. When air has been admitted, the coccos, enveloped in a colloid mantle, unites with others to form a thin lamina or plate, which he then calls *petalococcos*; and then to irregular balls, which he calls *gliacoccos*. If air be withdrawn, the *gliacoccos* develops only sparingly. When the fluid is in motion, chains of various lengths (the *streptococcos*) are formed, together with balls, or gliacoccos. These chains are more or less spiral, and each joint divides, thus increasing the length of the chain.

Billroth also describes certain grayish-green club-shaped or cylindrical bodies (the *ascococcos*), which contain multitudes of *micrococcos* in a sort of gelatinous matrix. He has seen these curious bodies burst, and so deliver themselves of multitudes of micrococcos.[‡]

By *bacteria* Billroth means exclusively those bodies that are rod-shaped, and he enumerates three varieties or sizes of them, viz., *microbacteria*, *mesobacteria*, and *megabacteria*. They multiply by transverse division, or through certain bodies that he calls "*dauersporen*," or lasting-spores, as they have been called, particles that possess an extraordinary capacity for withstanding great heat, cold, and various reagents. These lasting spores are developed from the gliacoccos or balls. By long-continued growth and transverse division the long chains result. These forms thus sketched depend upon various influences, such as the lack or abundance of air, and the character of the media in which they exist. But, according to Billroth, they are merely parts of a common plant, which he calls *coccobacteria septica*, and which, in one instance, he found in an old specimen of milk serum.

The form of the mature plant would, according to Billroth, be analogous to that of some cryptogamic plants, of which the *penicillium*, or mould-fungus, is an example. Now, though we do not often see either of them in their fully developed state, yet under suitable conditions we know that one is seen, and it is not incredible that the other may also be seen. Thus, in the penicillium we see at the base the entwining network of filaments that constitutes the *mycelium*, the tall, erect stem, or *hyphen*, surmounted by the globular expansion, with its staff-shaped *stigmata*, and finally its spherical *conidia*, or spores.

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[*] Liebermeister, op. cit., p. 12.

[†] Twelfth Report of the Med. Officer of the Privy Council, 1869, p. 232.

[‡] Brit. Med. Jour., Jan. 16, Feb. 12, March 27, April 3, 1875.

[§] Lancet, April 10, 1875.

[‖] Virchow's Archiv, IX. iii. iv., 1874.

[¶] Untersuchungen ueber die veg. formen von Cocc bacteria septica. Berlin, 1874.

[**] Archiv f. klin. Chir., iv., 1875, et al.

[*] Bacterium, a little rod.

[†] Untersuchungen ueber die vegetationsformen von Coccobacteria septica, etc. Analysis by Senator, Allg. Med. Central.-Ztg., 16, 17, 1875.

[‡] The singular and the plural have the same spelling.

Such may, according to Billroth, be the relations of these minute bacterial bodies—rods, chains, and spheres—to a fully matured plant, which he has named *coccobacteria septica*.

The forms to which our attention is to be specially directed, are (*a*) the very minute little round bodies already described (micrococcus of Cohn, and coccobacteria of Billroth); (*b*) the little oval or elongated bodies which in length are about $\frac{1}{9000}$ of an inch, or about one-third the diameter of a lymphoid corpuscle, and have a breadth of about $\frac{1}{27000}$ of an inch: these are the bacteria proper; (*c*) the little chains which may have from two to ten segments, or even more (the streptococcos of Billroth); (*d*) the collections of minute spheroids that are gathered in balls (zoogl&oelig;a of Cohn, colonies of Hallier, and gliacoccos of Billroth); (*e*) the filamentous bodies whose spiral motion is seen to great advantage in decomposing fluids, and which dart back and forth with a serpentine motion across the field of the microscope (spirillum of Cohn).* We shall find it convenient to use the term bacteria for all these forms—because the word has met with such common acceptance as comprehending the entire group just mentioned.

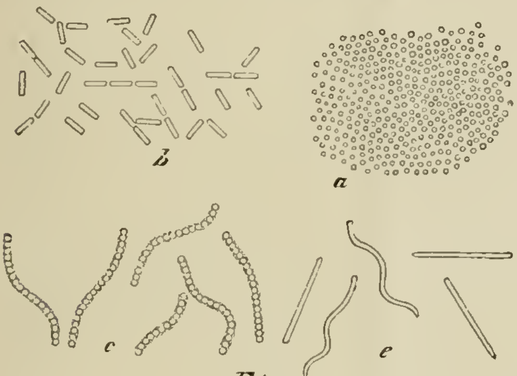

Fig. 1

There are two conditions under which bacteria are found—one of motion, and the other of rest; the mere state of inaction not at all indicating that they are dead, for under the requisite conditions they may still grow and produce their kind. When in motion, the rod-bacteria have a sort of spiral movement on their long axis, along which they extend and contract; or they may spin about on the centre of their long diameter, or may move about with an oscillating movement. The smallest spheroids also move about within a limited area, but are often at rest, though it is by no means certain that they have the motion that is called "independent"—that is, one that they cause. rather than that which is caused by external circumstances. For the mere fact of motion in such particles does not indicate life; indeed all particles, even granules of any kind, may have a certain kind of oscillating movement, which depends on the density of the medium—for the denser the medium the more slowly they move. Real motion in such bodies may be assured when they move against a current, or across it, and do not merely revolve about within a limited area. The spirilla have the most active motion; for they will dart across the field by a quick serpentine movement, often stop suddenly, and then dart off in the same or a different direction. When at rest they do not appear to be in spirals, as the drawings of them would often indicate, but they are straight and filamentous, the precise nature of their interior being uncertain.*

Bacteria have been supposed by some to possess an envelope of more density than ordinary protoplasm, as they are able to withstand extremes of heat and cold and the action of various reagents which dissolve protoplasmic matter very quickly. When these bodies occur in colonies. or in chains, or in plates, they are united by an extremely delicate cementing substance.

For a long time there was doubt as to whether bacteria were vegetable or animal, and the doubt does not appear to be altogether removed in some quarters; but botanists seem now to be pretty well united in considering them vegetable, and the following are some of the reasons for this opinion: They behave more like plants than animals. taking up nitrogen, which is often derived from ammonia, and carbon from almost any carbonaceous substance; they also need certain inorganic compounds, such as potash and phosphoric acid.† These facts were ascertained in an ingenious way by Cohn, of Breslau. Finding that bacteria grew rapidly in Pasteur's fluid, which has a determinate chemical composition, containing cane-sugar, tartrate of ammonia, yeast-ash, and water, he modified it in various ways, first throwing out the cane-sugar, which did not improve the liquid as a medium for bacteria, but only favored the growth of the sugar and mould fungi. Substituting for the yeast-ash sulphate of potassa and phosphate of potassa, he prepared his solution so as to contain:

Tartrate of ammonia..........	1.0 gramme.
Phosphate of potassa, Sulphate of magnesia, of each...	0.5 gramme.
Phosphate of lime............	0.05 gramme.
Distilled water..............	100.0 c.c.

This fluid, now known as Cohn's nutrient fluid. when filtered, developed bacteria in enormous quantities, so that at the end of twenty-four hours it swarmed with them, and was distinctly turbid.

This was therefore in accordance with their vegetable nature, their nitrogen being taken from the ammonia, and their carbon from the tartrate. This fluid will not, however, originate bacteria of itself; for if it be boiled and put away in bent tubes that have been heated to redness, and whose necks have been drawn out to a fine point and sealed, it will remain clear indefinitely.

The same thing may be accomplished by stopping the mouth of a vertical tube with fine cotton; but if at any time the fluid be exposed to the air in an upright. unstoppered vessel, or if almost any substance not previously acted on by special reagents be brought in contact with the fluid, turbidity will then be sure to ensue within two days.

Another argument in favor of the vegetable nature of these bodies has recently been brought forward by Robin, the eminent French investigator. He rests his conclusions on ammonia.

Every form of cellulose, he says, is absolutely insoluble in ammonia, cold or boiling; every vegetable, microscopic or otherwise, every mycelium. and every spore retains integrally its form, volume, and structural character, while the reverse is the case with microscopic animals, their eggs and embryos. His ideas as to the relation the various forms we have described bear to the fully matured plant are not very unlike those of Billroth. Thus he says that when the little rods, which have been called bacteridia, microbacteria, etc., have attained a length of about $\frac{1}{3000}$ of an inch, they are known as the *leptothrix* (a common fungus found so frequently on the human tongue); they then represent mycelia; advancing to a higher stage they develop into articulate filaments, or perhaps into the spore-bearing tubes of the plant *oidium* (which we know of from its association with thrush). They are cryptogams, like the penicillium, and can live with or without air. Thus two very prominent authorities connect these microscopic forms with certain cryptogamic plants, though they are not united as to what the ultimate complete plant is.* As to the way in which the smallest forms originate, we have no very definite knowledge. Billroth says that he has seen them pouring out of the capsules of the ascococcos, but this alone will not explain their appearance, for they sometimes are found where no such capsules are to be seen.

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* This classification is a convenient one, and sufficiently accurate for the practical questions that at present concern us. There is little doubt but that many of the so-called micrococci are nothing but the rod-bacteria seen endwise; but spherical bodies are also sometimes found. and these, it is claimed, have been proved to originate rod bacteria.

* By some it is supposed that the spirilla are made up of spheres, though it is by no means certain that they all are similar in structure.

† Sanderson, Lancet, Jan. 16, 1875

Rod-bacteria multiply by division, and these changes are exceedingly rapid when the conditions, such as fluid, temperature, etc., are favorable. Then each bacterium is said to divide in from one to two hours. Some of the smallest forms, however, appear suddenly in a fluid that was previously clear, and they soon show the characters of bacteria. The question of spontaneous generation in such cases is decidedly negatived by the fact that if the fluid be boiled, and in this condition received into properly prepared vessels, no growth or appearance of it takes place; while, on the other hand, if almost any substance that has been exposed to the air at ordinary temperatures, or the air itself under certain conditions, be introduced, growth and multiplication will immediately take place.

Bacteria are found very abundantly in all putrid fluids and substances, with very rare, if any, exceptions; but they are by no means confined to such conditions, as they exist generally in nature, and, in fact, in the very air we breathe.† This may be demonstrated in the following simple way: If any one will take an ordinary glass slide that is rather thin, will superheat it, as well as the cover that is to be used, and expose the former to the ordinary dust of the room, and then examine the dust, with the addition of a single drop of distilled water that has previously been boiled, he will find, on using a good lens—such as an immersion 10th or 12th—that there are bodies present resembling the bacteria just described, and exhibiting such movements as we have stated that they have.

It is probable, therefore, that they exist among the motes seen in the sunbeam, as stated by Sanderson.‡ If epithelial scales can float about in the air, and be carried to the highest corners of rooms, as shown by my late preceptor, the distinguished Wyman, of Cambridge, why may not such minute objects as bacteria, so vastly more minute, be carried about in the same way?

[End of Part I.]

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St. Louis is to have a school of veterinary medicine.

A CASE OF INVERSION OF THE UTERUS, WITH OPERATION BY WHITE'S METHOD.

Reported by ERNEST CLEVELAND COXE, M.D.,
BUFFALO, N. Y.

Mrs. C., aged 25 years, is a native of Allegany Co. She married when 18 years old, and had two confinements unmarked by any special incidents. On the 10th of June, 1875, she was brought to bed with her third child, and attended by a practitioner who for some time had discontinued professional business.

Dr. W. S. Cottrell, the physician now in charge, gives the following history of the case up to the date of the operation: "I was called to see Mrs. C. shortly after her delivery, the messenger stating that Dr. H. did not think that she could live five minutes. I immediately went to the house, and found the patient looking very badly; pale, in considerable pain; pulse 180, feeble in character. I asked the doctor if there had been flooding; he replied that there had not, and said that he attributed the pallor and prostration to the morphine which he had administered, gr. ij., within twenty minutes. Shortly afterwards she vomited the morphine, and expressed herself as feeling some better. The doctor in charge then stated to me that the child was born with the cord around its neck, and that the placenta and uterus came down at the same time with the child, that he detached the placenta, and returned the uterus. The women present say, however, that the child was born naturally, and that some time elapsed before the doctor 'took the after-birth,' and that at the time there was some organ visible which they had never seen before in confinements.

"The case was afterwards placed in my hands, and on visiting her four weeks after her delivery I found her very feeble in health, taking but little food, and that liquid in character. Nevertheless there was a large secretion of milk, on which the child throve.

"Dr. Shaw, of Erie Co., being in the neighborhood, I determined to call him in consultation. Upon examination, a tumor was found lying in the vagina, which Dr. Shaw pronounced a uterine fibroid.

"This diagnosis was not satisfactory to me, so I sent for Dr. Crandall, of Andover, N. Y., to come in consultation, telling him to bring his instruments with him in case we should decide that it was fibroid. On examining the patient, Dr. Crandall gave as his opinion that the tumor was an inverted uterus.

"At this date, August 24th, Mrs. C. being fearfully reduced, and subject to very frequent hemorrhage, we decided that an operation for her relief should be attempted without delay."

Dr. Cottrell, at the request of the patient's husband, on the 9th of September wrote to Dr. White, asking him to operate. The doctor in reply named Sept. 22d as a convenient date, adding detailed directions in regard to preparing her for operation, *i.e.*, quinine and iron tonic, generous diet, perfect quiet, etc., laying *particular stress* upon the necessity of having the rectum thoroughly empty on the appointed day.

On Sept. 22d Dr. White arrived and proceeded to make his preliminary examination, the following gentlemen being present and assisting: Drs. Cottrell, of Whitesville; Crandall, of Andover; Coxe, of Buffalo; and Mr. Langworthy, a student.

The patient being fully under the influence of ether, Dr. White made an attempt to examine by means of the sound in the bladder and the finger in the rectum, but the condition of the latter viscus, which, in spite of reiterated instruction, had been allowed to become loaded with hardened fæces, made this procedure impossible.

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* Gaz. Hebdom., 27, 28, 30. 1875.
† It appears to be denied by Bastian
‡ Op. cit.

Upon introducing his finger into the vagina, the doctor was puzzled to find an object, which, in shape and consistence, differed greatly from the organ which he was in search of. After careful manipulation, he was enabled to draw forth a ball of cotton cloth saturated with horridly offensive putrid blood and discharge. Quite a quantity of black tarry fluid followed the withdrawal of the wad, filling the room with a stench truly infernal.

Dr. Cottrell explained that two weeks previous, Mrs. C. having a severe attack of flooding, Dr. Crandall had found it necessary to tampon the vagina, using for the purpose four pieces of cotton cloth. He had left directions for him, Dr. Cottrell, to remove them on the following day. This, as he thought, he had done, but events proved that a portion of the tampon had been left *in situ* for a *fortnight;* the uterus, by its agency, during this period being freely bathed in a highly septic fluid.

After thoroughly syringing the vagina, the doctor was enabled to make a perfectly satisfactory diagnosis by conjoined manipulation. By pushing up the tumor, the inverted os could be plainly felt through the walls of the abdomen, which were relaxed and thin. The uterus was not large, showing that the process of involution had not been materially interfered with.

Introducing the right hand, armed with a large rectal bougie, into the vagina, while making counter-pressure with the left over the abdomen, partly by pressure, partly by manipulation, the walls of the uterus soon began to yield, and at the end of six minutes the doctor announced that the reduction was effected.

In this operation it was found unnecessary to use the "egg-beater" repositor. By comparing dates we find that the uterus had been inverted for three months and twelve days.

The patient rallied nicely from the ether, the pulse was good, appearance quite cheerful. Feeling a good deal of uterine tenesmus, morphine was administered and followed by relief.

Particular directions were then given in regard to antiseptic infections. Carbolic water to be used freely, quinine to be given in full doses, and all pain subdued by opiates.

Subsequent to the operation, symptoms of septicæmia showed themselves. These, however, yielded promptly to appropriate treatment, and this danger averted, the patient began to make rapid progress towards a good recovery. On the fifteenth day after the operation the menstrual flow appeared, continuing for two days. It was accompanied by the usual headache and slight abdominal pain, but no more than she was accustomed to experience at her "monthlies" before her pregnancy.

Eighteen days from date of operation the patient was able to sit up in a chair, ate with good appetite, and appeared so well that her attending physician discontinued his visits.

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Boston Hospital for Women.—Boston has an institution similar to the New York State Woman's Hospital. It was opened on the 2d of November, at No. 16 East Springfield Street, and has accommodations for twenty patients. It is supported by churches and by individual charity, and is governed by a board of trustees and the medical staff. The nursing is by the Episcopal sisterhood of St. Margaret, and Dr. W. H. Baker is the Visiting Surgeon.

TRACHEOTOMY IN DIPHTHERIA, WITH RECOVERY.

By BEVERHOUT THOMPSON,

VISITING PHYSICIAN TO THE CENTRAL DISPENSARY; ONE OF THE ATTENDING PHYSICIANS TO THE OUTDOOR DEPARTMENT, BELLEVUE.

As comparatively few children recover from diphtheria after tracheotomy is resorted to, I consider it of sufficient interest to report the following case:

On the afternoon of the 4th of May, I was called to see the little daughter of Mrs. L——, aged five years—a small, delicate-looking child, with light hair and blue eyes; the mother said she had been unwell for several days; was feverish, very restless at night, and had a dry cough. The little girl appeared in good spirits; was running about the room playing, eating a cracker. I examined the chest carefully, but could detect nothing there to give rise to the cough; looked at the throat, which was filled with pieces of cracker—could see, however, that it was slightly congested; the tongue was moist and clean, the pulse a little excited, skin rather hot, appetite good, bowels regular; ordered a mixture containing tr. aconite, gtt. xv.; potass. chloras, ℈ij.; spts. ætheris nitrici, ʒ i.; syr. tolu. aquæ cinnamomi, āā ℥ iss. M. Dessert-spoonful every three hours, and promised to call in the morning.

At 9 P.M. was called again; found the child with a pulse of 120, a croupy cough, considerable dyspnœa, crying and tossing about in bed; discovered diphtheritic membrane commencing upon both tonsils; had the child put into a mustard bath up to the hips for a few minutes, and wrapped up in a blanket; gave teaspoonful doses of syrup of ipecac every twenty minutes until vomiting was produced, when she became much easier; remained a half hour; pencilled the fauces with tr. iodine, and upon leaving ordered quiniæ sulph. gr. v., and sponges wrung out of hot water to be applied to the neck over the throat, should the breathing become difficult.

May 5th.—My morning visit was made at 10 A.M. The child had not slept during the night, having continued to grow worse; the membrane had extended over the fauces, the pulse 130, lips and finger-nails blue; there was alarming dyspnœa, and every appearance of immediate suffocation. An emetic of ipecac was administered; lime slacked until the room was filled with steam, the hot sponges applied, which afforded only temporary relief. The mother was informed of the danger; it was explained to her that it would be necessary to put a tube in the trachea, and a consultation was requested. I then arranged with Dr. Alfred L. Loomis to meet me at 12.15, and asked Dr. J. H. Dew to be present. After examining the child they both coincided with me in the opinion that tracheotomy was the only alternative, and stated to the mother the importance of the operation, which she consented to. Whereupon we proceeded to operate. An anæsthetic was not administered, as the child was nearly insensible. I made an incision through the integument in the median line, extending from the base of the cricoid cartilage to within half an inch of the sternum, divided the muscles and fasciæ, pushing aside several veins of the thyroid plexus, but the parts were so congested it was impossible to distinguish clearly, and a vein was unavoidably cut, which bled most profusely. I endeavored to tie it; was unsuccessful; used pressure; applied powdered alum, which was at hand. All my efforts, however, proving unavailing and the hemorrhage increasing to an alarming extent, Dr. Dew tried to arrest it, also Dr. Loomis. Suddenly the child gave a gasp, straightened herself out and ceased to breathe.

The mother, who had been standing by washing out the sponges as they were required, began to cry and wring her hands, exclaiming, "O, doctor, you have killed my child, you have killed my child; she has bled to death! Why didn't you let her die in peace?" Some little delay and confusion was occasioned by this interruption, as it really seemed almost useless to proceed further. Dr. Loomis, however, said, "Put in the tube." I seized my tenaculum, with which I steadied the trachea, and cut from above downwards, making an incision three-quarters of an inch in length, through which a silver tube was inserted, compressed the chest, forcing out frothy mucus and blood, when the child began to respire. A suture was passed down deeply through the tissues, above and below the tube, which controlled the hemorrhage, and in a short time respiration was fully established; the child was then given a little wine and water. 3.30 P.M. Pulse, 130; respiration, 48; temperature, 102°; has been dozing fifteen minutes at a time; made motions constantly for water; was given a little wine and water, also some milk punch. Ordered quiniæ sulph. gr. v. 9 P.M. Pulse, 132; respiration, 35; temperature, 102¼°; expectorating considerably through the tube; has eaten a small piece of sponge cake and drank a cup of tea. Quiniæ sulph. gr. v., to be given at 10 P.M.; milk *ad libitum.*

6th, 9.30 A.M. Pulse, 134; respiration, 30; temperature, 102°. Slept during the night three-quarters of an hour at a time, drank one pint and a half of milk, voided urine, touched the parts around the tube with a weak solution of carbolic acid, ordered the steam from the slacked lime every three hours. Quiniæ sulph. gr.v., a saturated solution of hyposulphite of soda to be applied to the fauces with a camel's-hair brush three or four times a day. 4 P.M. Pulse, 125; respiration, 28; temperature, 102°. Very comfortable, bowels moved, taken a teacupful of chicken soup and a cup of milk; treatment continued. 10 P.M. Pulse 135; respiration, 48; temperature 102½°. Slept until 8 P.M., when she began to toss and struggle for breath. The dyspnœa was caused by thick, tenacious mucus collecting in and below the tube; the inner tube was removed by the mother to clean, and could not be returned, owing to the inspissated mucus. I succeeded in getting some of it out with a feather, but the paroxysms of difficult breathing soon returned. Administered quiniæ sulph. gr. v., kept up the steam from the lime continuously for two hours, left at 12 o'clock, promising to return; the tube to be kept clear with a feather. 1 A.M. Returned with Dr. Dew and Dr. Byrne. Pulse, 170; respiration, 25, and labored. Dr. Dew discovered subcrepitant râles over the infra-clavicular region of the right side; a spray of salt and water was applied to the tube without any appreciable benefit. A sponge wrung out in hot water and salt was then held near the tube, so as to allow the warm vapor to be inhaled, which softened the mucus and relieved the breathing greatly, the child in the meanwhile falling asleep; directed the sponges to be continued for five or six hours; ordered an oil-silk shirt.

7th, 8 A.M. Pulse, 132; respiration, 34; temperature, 101½°. Has slept nicely since half-past one, awakened once only for a few minutes and ate a small piece of banana, drank three teacupfuls of milk, expectorated several pieces of membrane through the tube, which were saved; prescribed quiniæ sulph. gr. v.; had the child removed to a larger room down stairs, with an open grate fire, the temperature of the room to be kept at 75°. 3 P.M. Called, accompanied with Dr. Beach. Pulse, 140; respiration, 25; temperature, 101½°. Took a teacup of milk, expectoration much looser, child coughed through the tube several pieces of diphtheritic membrane, three to four inches in length, and from a quarter to one-half an inch in width, which were thrown out with considerable force; membrane still covering the fauces. Dr. Beach suggested that the feather be dipped in a saturated solution of bicarbonate of soda when clearing out the tube, because of its tendency to dissolve mucus. 10.30 P.M. Pulse, 130; respiration, 26; temperature, 102°. Has drank two tea cupfuls of milk, three tablespoonfuls of brandy and water; is sleeping very quietly, subcrepitant râles over infra-clavicular region of both sides. Quiniæ sulph. gr. v.

8th. Was sent for at 6 A.M. Pulse 140; respiration, 45; temperature, 101¾°. Tube almost closed with thickened mucus, could not be cleared, was obliged to remove it; the parts around the wound were cleansed with warm water and soap, the tube cleaned, well oiled, and returned with considerable difficulty; took through the night three teacupfuls of milk, three tablespoonfuls of brandy and water, and the leg of a pigeon; bowels moved, membrane in fauces cleaning off. Left at 8 A.M., child sitting up in bed playing. Pulse, 125; respiration, 35. 10 A.M. Respiration hurried, mucus collected below the tube, could not dislodge it with the feather, filled the room with steam from slacked lime, applied the hot sponges for two hours; several pieces of tough mucus were then coughed out, when the breathing was relieved; drank a cup of milk. Quiniæ sulph. gr. vi. 5 P.M. Pulse, 128; respiration, 44; temperature, 101¾°. Has drank two cupfuls of milk, tablespoonful of brandy and water, eaten a small piece of custard pie and some currant jelly. Quiniæ sulph. gr. vi., to be given at 7 P.M. 10.30 P.M. Sleeping. Pulse, 128; respiration, 34; temperature, 101¼°. Drank two cupfuls of milk at six o'clock, which she vomited soon after; very little expectoration; ordered the sponges at intervals during the night held near the tube.

9th, 9 A.M. Pulse, 128; respiration, 24; temperature, 101¼°. Slept nearly all night; expectoration thinner, is coughed out of the tube freely; membrane in fauces entirely cleaned off; tongue moist and clean; lungs clear, râles having disappeared; there is some soreness and redness of the parts around the tube, to which a weak solution of carbolic acid is applied occasionally; taken one pint and three-quarters of milk, tablespoonful of brandy and water. 7 P.M. Pulse, 130; respiration, 32. Taken three ounces of wine, two pints and a half of milk, a piece of pigeon. Quiniæ sulph. gr. vi. 11 P.M. Pulse, 125; respiration, 46; temperature, 100°. Drank two ounces of wine, a pint and a half of milk; complains of earache; syringed ear with warm water, and put in a few drops of laudanum and olive oil; ordered quiniæ sulph. gr. iv. at 2 A.M.

10th, 9 A.M. Slept all night. Pulse, 108; respiration, 32; temperature, 99¾°. Very bright and playful; taken one pint of milk, one ounce of wine, a piece of pigeon. 10 P.M. Pulse, 108; respiration, 46; temperature, 100°. Taken a quart of milk, a cup of tea, and a piece of pigeon; ordered quiniæ sulph. gr. vi., at twelve o'clock.

11th, 10 A.M. Pulse, 112; respiration, 44; temperature, 98¼°. Rested well, ate a squab for breakfast, drank an ounce of wine and a cup of tea, is very lively, wants to get up, breathes through the mouth and nose when the tube is closed with the finger; discontinued the hyposulphite of soda to the fauces. 11.30 P.M. Pulse, 100; respiration, 40; temperature, 98¾°. Taken two squabs, three pints of milk, two ounces of wine; quiniæ sulph. gr. iv.

12th, 11 A.M. Pulse, 112; respiration, 48; temperature, 99°. Eaten a squab, drank one pint and a half of milk, cup of tea, six ounces of wine; bowels moved after considerable straining and passed but little; ordered hydr. chloridi mite, pulv. rhei, āā gr. ij. Removed the tube. 10 P.M. Pulse, 108; respiration, 44; temperature, 99°. Taken one pint of milk, twelve ounces of wine, small piece of pigeon; bowels moved; quinia sulph. gr. iv.

13th, 10.30 A.M. Pulse, 115; respiration, 44; temperature, 98¾°. Breathing more through the nose and mouth than through the opening; bowels moved; drank one pint and a half of milk, half an ounce of wine, cup of tea; discontinued the steam from the slacked lime, kept the air in the room moist by steam from the spout of a boiling tea-kettle. 10 P.M. Pulse, 112; respiration, 32; temperature, 98¾°. Eaten some beefsteak, a piece of lemon pie, drank a quart of milk, cup of tea, one pint and a half of wine; is dressed and playing about the room; opening in trachea closing rapidly. Quiniæ sulph. gr. iv.

14th. Pulse, 120; respiration, 32; temperature, 98¾°. Breathing entirely through the mouth and nose; child coughs occasionally, when a little air escapes through the wound; bowels moved; taken one pint of milk, an ounce of wine, a squab, and a piece of toast; ordered an emulsion of cod-liver oil and phosphate of lime three times a day.

From this time forward she improved rapidly; the wound in the trachea healed nicely: the voice returned, and in a few days she was playing about as usual. Continued the cod-liver oil for several weeks.

In conclusion, I would state, recovery was in a very great measure due to the fact that the air was kept constantly moist by slacking lime, and to the frequent inhalation of warm vapor from sponges squeezed out in hot water and salt, which afforded the only relief when the dyspnœa was greatest, softened the mucus and facilitated the separation of the diphtheritic membrane.

New York, *December*, 1875.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

TYPHOID FEVER—ANTIPYRETIC TREATMENT BY MEANS OF COLD BATHS.

The two cases here recited were such as demanded the use of the cold bath, and the measure was followed by excellent results.

The first patient was aged 28, and when admitted her pulse was 132, respiration 42, and temperature 105° F. Her tongue was dry; lips and teeth covered with sordes; she was quite deaf; her face had a dusky color; and she could be roused only with considerable difficulty.

Oct. 24.—Morning temp. 104½° F. Evening, 105° F.
Oct. 25. " " 103⅗° F. " 104⅞° F.

The effect produced upon the system by the disease seemed to be rapidly increasing.

Oc. 26.—To-day the baths were commenced, and the first was given at 5.30 A.M.; having a temperature of 80° F., was continued ten minutes, and brought the temperature of the patient down from 104⅞° F. to 102¼° F. At 8 A.M. the temperature began to rise, and the bath was repeated with the result of bringing the body heat down from 103½° F. to 99° F. in the axilla, and to 102° F. in the vagina. The vaginal temperature only will now be recorded.

Oct. 27.—Morning temperature 103¼° F. Evening, 103¾° F. During the morning hours the patient received three baths, and the temperature was made to remain at about 101¼° F. In the evening it arose to 104° F., and the bath was repeated with the result of bringing the temperature down to 101° F.

Since Oct. 27th, it has not been necessary to repeat the baths, the temperature not rising above 103° F. in the evening, and at date (Nov. 8th), the patient had a morning temperature of 99¼° F., notwithstanding the fact that her case had been complicated with hemorrhage from the bowels.

The second patient was admitted Nov. 1st. On Nov. 3d the temperature was 103½° F. in the morning; her tongue was dry and brown, and there was marked tremor of the muscles. In the morning the temperature had risen to 106¼° F. in the vagina. The cold bath was used of the same temperature and duration as in the first case, and half an hour afterwards the temperature was 103½° F. The effect of this bath continued until the next morning, when the temperature again began to rise, and the bath was repeated, with the same happy effect. Three or four baths were given daily, and the usual hours for their use were four, six, and eight in the afternoon. Several times the temperature had remained at a comparatively low degree as long as twelve hours after receiving a bath, but had risen again as high as 105° F., or more, in the evening. The prognosis in this case, notwithstanding the good effect of the cold bathing, was rendered quite unfavorable by the fact that the patient had been a very intemperate person previous to the attack of fever.

TYPHOID FEVER—QUININE AS AN ANTIPYRETIC.

This case of typhoid fever was characterized by rather an unusual intensity of temperature. The only agent used to control it, was the sulphate of quinine, and with what result can be seen below. The quinine was administered in solution with dilute sulphuric acid.

A male patient, æt. 22, a sailor, came direct from the ship to the hospital, and was admitted Oct. 20th, 1875. He had been sick six days before admission. When admitted he received grs. xx. of quinine. The following morning his temperature was 104¼° F. in the axilla, and grs. xx. of quinine were administered. One hour after, the axillary temperature was 104¾° F., and the rectal 105½° F. The average difference between the axillary and rectal temperature has been about 1° F., and hereafter only the rectal will be given. Through the day (Oct. 21), from 10 A.M. until 7 P.M., his temperature ranged from 105° F. to 106¼° F., and back to 105° F. At 7 P.M. he received grs. xx. of quinine.

Oct. 22, 12.30 A.M.—Temperature, 102¾° F.; at noon, 105½° F.; at 5 P.M., 105¼° F.; and within this time grs. xl. of quinine had been taken.

Oct. 23d, 8 A.M., T. 104° F.
10 " " 105° F.; grs. xx. quinine.
12 NOON, " 104¼° F.; grs. xx. quinine.
4 P.M., " 103¼° F.
6 " " 104° F.; grs. xx. quinine.
8 " " 104½° F.
Oct. 24th, 12.10 A.M., 103° F.
8 " 104° F.
10 " " 104¼° F; grs. xx. quinine.
12 NOON, " 105° F.; grs. xv. quinine.

Oct. 24th, 2 P.M., T. 104⅛° F.; sponged with tepid water.
4 “ “ 104½° F.
6 “ “ 104½° F.
8 “ “ 104⅝° F.; grs. xx. quinine.
Oct. 25th, 12.10 A.M., 104¾° F.; grs. xl. quinine.
6 “ “ 102° F.
8 “ “ 102½° F.
10 “ “ 104° F.
Oct. 26th, 12.10 A.M., 102° F.
8 “ “ 103½° F.; grs. xx. quinine.
10 “ “ 104½° F.; grs. xx. quinine.
12 NOON, “ 104° F.; grs. xx. quinine.
2 P.M., “ 104° F.
4 “ “ 103° F.
6 “ “ 103° F.
8 “ “ 103¼° F.
Oct. 27th, 8 A.M., “ 102¾° F.; grs. xx. quinine.
10 “ “ 104° F.
12 NOON, “ 104½° F.; grs. xx. quinine.
2 P.M., “ 103¾° F.
4 “ “ 103½° F.

Such was the antipyretic treatment up to date (Oct. 28), and notwithstanding this and the natural effects of his disease, he was exceedingly comfortable, and the morning of Oct. 28th had a pulse of 77, respiration 21, and a temperature 103½° F. The eruption was well marked; diarrhœa slight; tympanites almost nothing; tenderness in the right iliac fossa slight; and the man evidently was not suffering from severe constitutional disturbance. The tongue was a trifle tremulous, but moist; no accumulation of sordes, and no delirium.

Thermometrical record of the case continued.

Oct. 28th, 8 A.M., T. 104¾° F.
12 NOON, “ 104¾° F.
2 P.M., “ 105¾° F.; grs. xx. quinine.
4 “ “ 105¾° F.; grs. xx. quinine.
6 “ “ 105¾° F.; grs. xxx. quinine, part of which was vomited.
8 “ “ 105¾° F.
Oct. 29th, 8 A.M., “ 103° F.; grs. xxx. quinine.
10 “ “ 103¾° F.
12 NOON, “ 104¼° F.; grs. l. quinine, by enema.
2 P.M., “ 104° F.
4 “ “ 104⅜° F.
5 “ “ 104½° F.; grs. xx. quinine.
6 “ “ 105⅛° F.
8 “ “ 105° F.
Oct. 30th, 8 A.M., “ 104¾° F.; grs. xxx. quinine.
10.30 “ 105¾° F.; grs. xxx. quinine.
12 NOON, “ 105¾° F.; grs. xxx. quinine, and a portion was rejected.
2 P.M., “ 105¼° F.
4 “ “ 103° F.
6 “ “ 102⅛° F.
Oct. 31st, 8 A.M., “ 102⅛° F.
10 “ “ 104° F.
12 NOON, “ 104¼° F.; grs. xxx. quinine.
2 P.M., “ 105° F.; grs. xxx. quinine.
4 “ “ 105° F.; grs. xxx. quinine.
6 “ “ 104⅝° F.
Nov. 1st, 8 A.M., “ 102° F.
10 “ “ 102⅜° F.
12 NOON, “ 102¾° F.
2 P.M., “ 104° F.
4 “ “ 104⅞° F.; grs. xxx. quinine.
6 “ “ 105¼° F.; grs. xxx. quinine.
8 “ “ 105° F.
Nov. 2d, 8 A.M., T. 101¼° F.
10 “ “ 102° F.
12 NOON, “ 103° F.
2 P.M., “ 104⅝° F.
4 “ “ 105¼° F.; grs. xxx. quinine.
6 “ “ 105° F.; grs. xxx. quinine.
8 “ “ 103¾° F.
Nov. 3d, 8 A.M., “ 102½° F.
10.30 “ 102¾° F.
12 NOON, “ 103½° F.
2 P.M., “ 104⅝° F.; grs. xxx. quinine.
4 “ “ 104¾° F.; grs. xxx. quinine.
6 “ “ 103¾° F.
8 “ “ 102° F.

The symptoms in this case since the 28th had not been severe, except the temperature, if that can be called severe when all the rest are mild. There had been no delirium, and the general appearance of the patient throughout the course had been good.

Progress of Medical Science.

ON FISSURE OF THE NECK OF THE BLADDER AND RAPID DILATATION OF THE URETHRA IN WOMEN.—Prof. Spiegelberg, of Breslau, insists upon the advantages of rapid dilatation of the female urethra, for purposes of accurate diagnosis and radical cure of various affections of that region. He claims that the inflammation of the mucous membrane and the incontinence of urine, which have been found so troublesome after gradual dilatation, are avoided in this mode of treatment. The dilatation can be carried up to almost an inch without risk; but it should be practised under chloroform, because of the pain it occasions and to avoid injury from sudden movements of the patient. The process occupies about a minute, the urethra being first moderately and then vigorously stretched. He uses Busch's uterine dilator, removing the upper branch, while for mere inspection Simon's specula will suffice. He has successfully employed this method in treating a polypus of the neck of the bladder, and even in evacuating the fluid in a case of hæmatometra, but regards it as specially applicable to the treatment of fissure of the neck of the bladder, of which he reports two cases successfully treated. This affection he regards as wholly analogous to fissure of the anus, both often following confinement, involving annular muscles, and requiring the same treatment. The pain and spasmodic contractions are more constant in vesical than in anal fissure, because the urine as it accumulates comes at once into contact with the raw surface, while there is always an interval before the fæces reach the sphincter in their descent. As a method of diagnosis this obviates the danger of mistaking the affection in question for a cystitis, a urethritis, or a simple neurosis.—*Berl. klin. Woch.*, XII., 16, 1875.—*Schmidt's Jahrb.*, Sept. 7, 1875.

THE COLORING MATTER IN TRAUMATIC ICTERUS.—According to M. Poncet, traumatic icterus is due to the resorption of the coloring matter of the blood. The coloring matter is, in this case, modified or reduced hæmoglobine, that is, hæmoglobine deprived of its oxygen. The spectral analysis of an ecchymotic liquid shows a peculiar characteristic band of reduced hæmoglobine. This liquid, treated with ether, gives a yellow coloring matter, which is separated from the hæmoglobine, and is the same that gives to the integument its icteric tint.—*Gazette Médicale*, Sept. 25, 1875.

THE MEDICAL RECORD:

A Weekly Journal of Medicine & Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

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DIPHTHERIA AND FILTH.

There seems to be a growing impression that many of our epidemic diseases may originate in *filth*, a term which is applicable not merely to foul organic matter in solid masses, but also to minute portions of it suspended in water or in the air. One or more of these conditions appears to call out typhoid fever or diarrhœal diseases, and this relation has been so marked in many cases that filth has come to be regarded by some as the actual cause of their occurrence.

Whether or not this is true, and whether or not we have found the specific poison in such instances, does not appear to have so much practical importance as the fact that we know the chief agencies by which infection is produced, and so may plan means to counteract them.

Acting upon the basis of these views, we should expect that approved sanitary measures would greatly mitigate the force of these diseases, and, in fact, this has really been accomplished, as shown by the statistical returns from villages and towns where sanitary regulations have been vigorously enforced.

The English reports are particularly valuable for the illustrations they afford of the working of these sanitary systems, especially in reference to typhoid fever and diarrhœal diseases. But while the attention of sanitary men has been so closely engaged in this especial direction, it can hardly be supposed that the element of filth may not also influence the occurrence of other affections. Indeed, these same reports tell us that outbreaks of both diphtheria and scarlet fever were closely associated with filth-nuisances of some sort or other. The evidence, however, is not altogether complete, for the instances of this kind are comparatively few, and, indeed, they are so far adverse to the filth theory, that the introduction of sanitary reforms was not followed by any uniform diminution in the mortality from these sources.

It is, however, to be said, that statistics of diphtheria are liable to peculiar sources of error. In the first place, the name itself is a comparatively new one, not having appeared on the English registers before 1856, while in this city the occurrence of the first case is well remembered by some of our older physicians, though at the same time we have no good reason to suppose that the disease is a new one. Then, again, there has always been a division of opinion among the best practitioners as to the precise elements in a differential diagnosis of diphtheria, which, it is well known, in the milder forms presents uncommon difficulties. These facts will serve to explain why too much reliance should not be placed upon statistics gathered from a wide range of inquiry. The careful investigation of an outbreak in a single town, where the cases have been known to an intelligent physician, are of much more value. In this connection our readers will have noted that the last number of this journal contained an article bearing certain considerations on the origin of diphtheria. The writer has made an impartial selection of twenty houses where the disease had appeared in a single town, and he has directed his inquiries towards the condition of the cellars and underlying soil. All of the inspected houses were built on an alluvial formation, the cellars were generally damp or wet, and in all cases insufficiently ventilated. The greatest fatality occurred in those that were built upon filled land, where the subsoil was clay and the cellars were wet. In such cases the exhalations of the ground were naturally laden with the products of decomposition, and being undisturbed by currents of air, and in the presence of a moist atmosphere and mild temperature were, in the writer's opinion, "accessory to, if not productive of, zymotic poisoning." The direction which these investigations took is interesting, and they point to results of practical importance.

In this city diphtheria seems to have been greatly influenced by conditions of a somewhat similar nature. In a large number of cases the possibility of infection from person to person has been almost inconceivable, especially when the poison seems to have such a limited capacity for transportation. Careful inspection of the premises in such cases has shown that sewer-gas could enter the apartments, either through defective drains, leaky pipes, or deficient traps; perhaps there was a lack of water to flush the basins or sinks, or foul matter had been allowed to collect on the premises or in the immediate neighborhood. These or other unsanitary conditions have almost invariably been found to be in operation when isolated cases have been investigated. Sometimes the filth nuisances were so plainly apparent that even nonprofessional persons believed them to have generated the sickness. These facts, of course, may not militate against the view that the poison has also a capacity for conveyance, of which many excellent examples are given. And yet, if the filth origin of diphtheria be admissible, it is then easy to conceive how many persons in one house may take the disease, not from each other, but from the same foul source.

But while we are able so often to associate gross sanitary neglects with the origin of diphtheria, we must be alive to the fact that a hardly less censurable condition of things is often present in houses where we should least suspect it. Filth is not merely the companion of the poor and uncivilized. Indeed, so far from this being the case, many of the poorest families in the city observe rigid cleanliness in their homes, though the buildings they live in be pest-houses. The fault may be with their landlord, who perhaps has given them leaky pipes, a scanty supply of water for their basins or sinks, improper water-closets, or has allowed the cellars or yards to be receptacles for all manner of foulness. Nor is it these landlords only, but the masters of substantial and elegant residences in the better portions of our city, who either from indifference or ignorance of the commonest sanitary rules, leave the doors wide open for the entrance of disease. Privies that are used by their subordinates are allowed to get out of repair, and are then heedlessly used until the nuisance become so excessive that the evil betrays itself.

Ashes and garbage also are sometimes allowed to collect in the areas or basements, until it suits the convenience of the servants or masters to have them removed. Nor is it very uncommon for the better class of houses to have worn out soil-pipes, which breathe out pestilence whenever there is pressure of sewer-gas. The common lead soil-pipes, with which so many of our houses are fitted, is now known to last but a comparatively short time. Under the influence of sewer-gas alone there is a gradual corrosion of the lead, and this action appears to be rapid or slow according to the amount of pressure. When such pipes are removed they are often so thin that a pin can be pushed through them, and even have large holes at the bends. These pipes are often hid away in the walls, and their condition is not known until a serious break has taken place, but meantime they have been pouring out their noisome vapors into the house. Nor is this all, for there are those living among us in good circumstances who altogether abuse the advantage which a good water system has given us. Such persons would scorn to be accused of anything uncleanly, but at the same time will sometimes not hesitate to use water-closets when out of order, and often fail to properly flush them sufficiently to carry off the waste beyond the trap, even when the water supply is abundant. When such water-closets are in the vicinity of sleeping rooms, and have imperfect communication with the outside air, the evil becomes an intolerable nuisance.

It is these dangers, together with the difficulty of at all times keeping back the sewer-gas from houses, that has led to a common notion that water-closets and wash sinks and basins are so detrimental in their operation that the safest plan is to remove them as far as possible from dwelling-houses, or at least to reduce them to a minimum, and return to the old pitcher-and-basin system. This, however, appears to be carrying the matter to extremes. Authorities appear to be agreed that for our cities at any rate the water system offers the best advantages, and is the most effective way of removing waste.

Another possible source of danger is our drinking water. As it comes to us through our direct pipes it is pretty sure to be sound and healthy, both because it comes to us from a comparatively pure source and it is robbed of its organic particles during its passage down. But we are apt to forget that in our own houses the water may be contaminated in various ways. One of the most common is for the overflow pipe from the tank to communicate with the sewer pipe, so that thus the sewer gas is led directly to the water supply.

A soil drenched with organic matter is also capable of giving out noxious gases, as pointed out by our recent contributor, and it is in such neighborhoods that diphtheria has shown a tendency to prevail—parts where there is neither sewerage nor drainage, and where the waste can collect in pockets on the surface or soak away into a spongy soil.

Many persons do not appear to be aware that these sanitary abuses are constantly in existence about us, but they are matters to which public attention should be turned, that they may be the sooner abated.

THE LOCALITIES OF MALARIA IN THE CITY.

The Health Board is endeavoring to ascertain the different localities on the built-up portions of this city subject to strictly malarial troubles. Not only is this inquiry to be confined to intermittent and remittent fevers, but to all the obscurer diseases in which the element of periodicity is sufficiently well marked to cause suspicion. A map of the city is sent to each physician, with the request that he will indicate the precise situation of each case of the sort which he may be called upon to treat, and transmit in due time the results of his labors. This is a matter of the greatest possible importance in connection with the true sanitary interests of the city, and it is to be hoped that every medical man will do his utmost to second the endeavors of the Board and offer to it any suggestions which may tend to promote the end in view. It is by the accumulation of such reports that a scientific basis can be made for an accurate estimate of the means which may be necessary to remedy the evil.

MEDICAL NIGHT SERVICE.

Within the past few days a physician of New Brunswick, New Jersey, was called at night to see a patient in the suburbs, and was not again seen alive. The particular locality in question is notoriously disreputable, and there is good reason for supposing that his messenger decoyed him thither for purposes of foul play. The body of the unfortunate physician was subsequently found in the canal with his pockets rifled, while his empty wallet and cravat were discovered on the bank. The possibility of suicide is entertained, and this theory of the cause of his untimely end may be substantiated; but in any event the case will have a tendency to impress upon the mind of every one who is liable to chance calls at night the necessity of guarding against a possible danger. We have always congratulated ourselves that the very calling of a physician granted him an immunity from such perils; but that we must disabuse ourselves of this idea is quite apparent from several murders of physicians under like circumstances which have recently come to our notice. If similar occurrences multiply themselves it may be exceedingly difficult to obtain night help even for those entitled to it. A physician is ever ready to render service to the needy, and for this purpose never shirks exposure to the inclemency of the weather nor hesitates to sacrifice his hours of repose, but it can hardly be expected that he will add to all this the risk of being the prey of the midnight assassin.

HOSPITAL APPOINTMENTS.

The remarks on hospital appointments by one of our correspondents deserve a great deal of attention on behalf of the large number of medical men who are interested in the discussion. The evils of which he complains are matters of fact, and the remedies which he proposes are deserving of thoughtful consideration. We are not very sanguine, however, that either of the plans which he suggests can be turned to practical account. Continuous medical service in our hospitals is very desirable on many accounts; but our clinical teachers, working as they do for the colleges, have no great incentive for work when there are no students in town, neither is there any question in regard to the utility of competitive examinations; but the opposing element in the shape of men who already hold hospital appointments, or who expect to gain them by influence rather than real merit, is still strong enough to render the immediate adoption of his plan hardly possible. We wish, however, it were otherwise, and still hope for the best.

The Kangaroo is said to have become acclimated in France, where several landed proprietors have introduced them to their own grounds, where they are hunted like other game. The flesh is now sold in the markets as an article of food, and is considered a great delicacy.

Dr. Lombe Atthill has been appointed Master of the Rotunda Lying-in Hospital, in Dublin, *vice* Dr. George Johnson, whose term of office has expired. The other candidate for the position was Dr. Cronyn.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 2, 1875.

Dr. S. S. Purple, President, in the Chair.

FUNCTIONAL DISORDERS OF THE HEART CHARACTERIZED BY NOTABLE INFREQUENCY OF THE PULSE.

After the transaction of important routine business referring to nominations, Prof. Austin Flint, Sr., read a brief but interesting contribution, in which he set forth the statement that functional disorder of the heart, seen in the forms with which every practitioner is familiar, is characterized by paroxysms of violent and fluttering, or irregular or intermittent action; the patient is distressingly conscious of disturbance about the heart, with a dread of sudden death; the paroxysms, sometimes momentary, sometimes lasting for hours, occurring at longer or shorter intervals; occurring especially during the night; occurring often without obvious exciting cause; but in the main dependent upon mental depression, derangement of digestion, venereal excess, tobacco, mental excitement, mind filled with apprehension of heart disease, leading the patient to watch his or her own heart with the greatest care, feeling its beats, noticing its irregularities and its intermission, etc.

INCREASED FREQUENCY OF PULSE.

An infrequent variety of functional disorder of the heart is characterized by a persistently rapid pulse without disturbed rhythm of the heart's action. This is a marked feature of Graves' disease, or exophthalmic goitre. The rhythm of the heart's action is usually regular, but the frequency of the pulse may be persistent for months and years. The disorder in this disease is doubtless functional, for the reason that there are no physical signs of organic disease of the heart necessarily present. Before determining whether this variety of functional disorder is present or not, it must be determined whether the same persons have naturally a notably frequent pulse, and without noting this peculiarity a needless distress may be caused. In this connection a case was related in which the pulse was never below 100, and a considerable portion of the time reached 120, and yet the lady was not aware of being in ill-health. This case was brought forward as an example of frequent pulse as a normal peculiarity. If otherwise, it showed that a frequent pulse may be continued for a long time without giving rise to any particular trouble. The case was under observation a number of years, and there were no physical signs of affection of the heart.

INFREQUENCY OF THE PULSE.

Functional disorder of the heart, characterized by a notable infrequency of the pulse, is a variety which is much more likely to occur than that to which reference has just been made. If it is not a variety, but is a distinct form of disorder, then there has heretofore been a hiatus in our study and knowledge of cardiac diseases. The histories of five cases were submitted as a simple contribution to the literature of the subject, and with the belief that they go far towards substantiating the fact that there is a variety of functional disorder of the heart characterized by a notable infrequency of the pulse. One case was alluded to, before proceeding to his own, that has already been reported by Mr.

Thornton in the eighth volume of *Clinical Transactions*, published in London, August, 1875. The patient was a woman æt. 20, married, anæmic and thin She entered the service to obtain relief from a syphilitic laryngitis. Her pulse was 40 to the minute. The emergencies of the case demanded the operation of laryngotomy. Her pulse remained the same after as before the operation. Not long after, the pulse lowered in frequency to 16 to the minute, the patient at that time suffering from transient attacks of giddiness. There was no evidence of organic disease of the heart, and the pulse gradually increased in frequency until it reached 40, and subsequently, when the patient was in a state of apparent health, it numbered 48. The patient had an epileptic seizure before the operation, and several afterwards. In the intervals between the convulsions the pulse usually numbered 24, and during the epileptic seizure complete intermissions, 16 and 18 seconds in length, were noticed.

The Professor's *first* case was a patient, about 35 years of age, the wife of a medical gentleman, who came under observation some seven or eight years ago, and at that time was full of apprehension that she had disease of the heart. Repeated physical examinations were made, but always with negative results. While at dinner one day a morsel of food disturbed the larynx, in such a manner as to give rise to a fit of coughing, a sense of suffocation and vomiting. The patient became livid in the face, and there was very great prostration. She fainted the moment her head was raised. Her pulse numbered 40 to the minute, and during her illness there was no evidence of cardiac disease. Several years subsequently the patient died of typhoid fever, and post-mortem revealed the fact that no cardiac lesion was present.

The *second* case was a person, æt. 38, and a convalescent from acute pneumonia affecting the right lung. The physical signs of the pneumonia had nearly all disappeared when the patient was seized with a sense of great prostration, a feeling as though death was impending, was covered with cold perspiration, and had a pulse of 40, and markedly intermittent. There were no cardiac murmurs audible, nor was there any increased area of cardiac dulness. The patient was of a highly excitable temperament. These attacks continued to recur for about six weeks, and were sometimes repeated as often as three times a day. But they finally ceased entirely, and complete recovery took place. At no time was there any elevation of temperature, and the examination of the urine gave only negative results. The lowest number reached by the pulse was 35. Brandy and ammonia were administered without effect upon the pulse, but usually calmed the excitement of the patient.

The *third* case was communicated to him, and occurred in a patient, æt. 53, previously healthy, who, after some exposure, had a feeling as though a cold had been contracted, whereupon he took a foot-bath, a hot punch, and retired early. The following day he indulged in the sport of a fox-chase, upon horseback. His appetite was moderately good, he slept well, had no cough, no sore throat, and suffered only from a sense of weakness through the upper portion of the trunk. His pulse numbered 26 to the minute; rhythm, fulness, and force good. Respiration 24. The heart was of normal size; sounds distinct, and impulse natural. The bowels were regular, urine abundant, with sp. g. of 1010. Urinary analysis negative. The patient was obliged to maintain the recumbent position. In the evening five grains of quinine and five grains of calomel were given, and repeated until four doses were taken. On the morning of the second day the respirations were 14; a single discharge from the bowels had occurred, and the pulse had increased to 32. On the third day the pulse was 36, and the cathartic, which had been repeated, had acted quite freely. On the fourth day the pulse was 42; on the fifth, 60; on the sixth, 80; and the patient then resumed his work.

The *fourth* case was seen in consultation. The patient, æt. 46, had been robust, except that he had suffered considerably from malarial fever, and at the time he was seen in consultation cephalalgia was the prominent symptom, and more severe at night. There was some evidence of delirium present. The pain in the head was persistent, and was finally relieved by morphine. In this case slowness of the pulse was a notable feature. In health the pulse of the patient ranged from 70 to 75. About ten days after the date of the commencement of the illness it numbered 40, once only 38, and increased in the evening to 46 or 48. The patient made a complete recovery. The slowness of the pulse continued for some time, but it gradually became more frequent, and finally reached 74.

The *fifth* case was seen in consultation, in January, 1874. The patient, æt. 43, had suffered from habitual constipation, but aside from that had been in fair health. He began to suffer from a sense of weakness and palpitation, and the pulse numbered 40. There were no abnormal cardiac sounds; lungs were healthy; urine normal; liver and spleen not enlarged, but there was some vertigo. In April his pulse ranged from 30 to 34, and in May from 30 to 40. In May, 1875, he had an epileptiform seizure, which was attended by copious vomiting, and the seizure was repeated within the month. His pulse was from 24 to 36 during the interval between the seizures. From May to August he had slight attacks, and the pulse was 36, and irregular. Digestion poor.

August 3, 1875, he had an epileptic seizure, and during the convulsion his pulse was 40, but returned again to 26. In September his retinæ were examined, and found normal. Phosphorus was now introduced, nearly the entire materia medica having preceded it, and the pulse increased from 26 to 36. In November, 1875, the patient was about, but there was a marked tendency to faintness. Urine normal. No record of pulse before the present sickness. But assuming the normal rate to be 80, a reduction to 26 is sufficiently remarkable to make the case worthy of note. At date the pulse was 36; rhythm regular; no murmurs; no cardiac hypertrophy.

Of these cases four were males and two females. They were aged respectively 20, 35, 38, 53, 46, and 43 years.

The lowest pulse reached in each case was respectively 16, 40, 35, 26, 38, and 24.

In each case recovery took place except the last, who is still under observation. In all the cases in which complete recovery was seen the pulse returned to its normal rate, except in the *second* case, where it remained at 48. It is questionable whether 48 was not the normal rate in that case, but it is altogether probable, however, that the patient would have been cognizant of the peculiarity had such been the fact. That a persistent infrequency of the pulse may be acquired without any impairment of the health, is probably true.

As an acquired normal peculiarity, however, it is rare. Infrequency of the pulse, denoting a variety of functional disorders of the heart, seems to be associated with marked cerebral disturbance.

This was true of all the cases reported, except one.

DIAGNOSIS.

The diagnosis involves, *first*, determining whether the infrequency is not a normal condition, either congenital or acquired. The pulse of Napoleon the First was said to be only 40, normally. As a rule, it may be safely assumed that, if the patient is ignorant of such a peculiarity, it is not normal. Organic affections of the heart are to be carefully excluded.

There is a condition of regular irregularity of the heart's action which must be excluded. That is, there is a condition in which the radial pulse indicates just half the number of heart-beats. The carotid pulse will enable us to exclude that condition. Cerebral hemorrhage, thrombosis, jaundice, uremia, are all easily excluded. Subacute or chronic meningitis may not be excluded with so much ease in some cases, but the cerebral symptoms indicative of compression of the brain are usually sufficient to differentiate meningitis from functional disorder of the heart, with slow pulse. Not every case, however, of meningitis presents these symptoms. Infrequency of pulse produced by drugs can also be easily excluded.

PATHOLOGY.

Physiology has demonstrated that the frequency and force of the heart's action is regulated by the constant nervous influence transmitted to the fibres of the pneumogastric nerves, which are distributed to that organ. It is apparent that in the ordinary forms of functional disorder, those which are characterized by an increase in the frequency of the pulse, there is a diminished influence, or a paralysis of the nerve-fibres.

But an infrequent pulse involves an abnormal increase of the resisting or inhibitory influence which is exerted through these nerves.

Why this influence is exerted we do not know.

PROGNOSIS.

Prognosis is favorable. There is no evidence that the inhibitory influence can be affected to such an extent as to endanger the life of the patient.

TREATMENT.

A purge in one of the cases was demonstrated to be of importance. Strychnia, atropia, iron, and subsequently phosphorus, were followed by partial relief in one case. What is desired is a remedy which will have a direct effect upon the inhibitory function of the pneumogastric nerves, and restore it to its normal relation. Theoretically, opium was suggested as being likely to prove useful. It should be given in *continuous* doses; that is, in such doses, and repeated at such intervals, that the influence of the drug will be continuous.

Perhaps this notable infrequency of the pulse is not so rare as is supposed, and further, perhaps not a few of those who have heard the paper may be able to recall a case or cases which have been under their observation.

Dr. F. N. Otis reported a case coming under this head, which occurred in a young man, æt. 28 or 30, who was suffering from an attack of acute epididymitis. The doctor's attention was drawn to the pulse, which was found to be only 46 or 48. At the same time the patient had profuse perspiration, coming on without apparent cause, and several such attacks would occur within twenty-four hours.

In other respects he was apparently well, except the epididymitis. There was no febrile movement, no pain, no cardiac lesions; but the patient was quite nervous. The pulse remained in this condition about three days; perspiration profuse, especially at night.

Whether the quinine and iron which were administered had anything to do with the recovery, he was uncertain. The pulse returned to 74.

Another case was mentioned, in which the pulse was reduced to 46, apparently by the influence of chlorate of potash, for it at once recovered its normal frequency when the drug was discontinued.

Dr. Blumenthal referred to four cases of this character which he had seen. As a rule, he thought this condition of pulse was the precursor of some serious trouble. In one of his cases the patient had a pulse of 40 for a few weeks, and then suffered from a distressing carbuncle. He regarded the slowness of the pulse as symptomatic of impending serious disease.

Dr. L. D. Bulkley referred to marked fluctuations in the number of the pulse-beat, and out of 250 cases five were recorded among the fifties. In one case there was a variation of 46 beats in 17 days; not from febrile action before or during the skin disease, which gave rise to the variation in the pulse.

Prof. E. R. Peaslee mentioned two cases as bearing upon a single cause for slow pulse. The first was a man, æt. 62, in whom the pulse became reduced to 38, and continued so for about one month. The second was a man about 45 years of age, always perfectly healthy, in whom the pulse numbered 40. In both cases it was due to the use of tobacco, and when that narcotic was excluded the pulse returned to the normal standard. He also alluded to the fact that during the war, while examining about 450 men over 18 and under 45, he found the pulse at 40 or 50 in a certain class of men, namely, cigar-makers. He farther experimented with them, and found that when it was announced to them that they must go to the war the pulse would rise at once, but would soon return to the low rate. He regarded the slow pulse as being due to some effect produced by the tobacco upon the inhibitory influence exerted by the pneumogastric nerve.

Other narcotics perhaps may produce the same effect.

Prof. Jacobi alluded to paralysis of the sympathetic as producing a slowing of the pulse. Perhaps a few of those cases mentioned by Dr. Flint can be explained in that way. Some of them evidently belonged to the neurotic class of persons. Now we know that in neurotic persons a hemicrania, for instance, may occur dependent upon a spastic or paralytic condition of the vaso-motor nerves. He had observed slow pulse, especially in little girls, sometimes irregular, and had been fearful of a termination in basilar meningitis, but was disappointed by finding that the pulse went up again as the general condition of the patient was improved.

A number of causes resulting in general anæmia will produce infrequency of the pulse. On the other hand, anæmia as a rule produces a frequent small pulse. His conclusion was that functional infrequency of the pulse may be explained in different ways in different cases. Either we have to deal with debility of the heart muscle, or we may have to deal with irritation of the pneumogastric nerve, or we may have to deal with paralysis of the sympathetic.

Changes in the circulation will follow the latter, such as attend dilatation of the blood-vessels. This condition may be benefited by remedies which act directly upon vaso-motor nerves. Quinine will benefit by giving tone to the blood-vessels. Atropia, or belladonna, will probably benefit the condition of the sympathetic.

On the other hand, we may have a change in the sympathetic ganglia substance which will give an infrequent pulse.

The Academy then adjourned.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, Dec. 3, 1875.

DR. E. R. PEASLEE, PRESIDENT, IN THE CHAIR.

CASES OF DIPHTHERIA.

THE evening was devoted to the relation of cases, of which the following were the more important:

DR. JOEL FOSTER referred to four cases of diphtheria lately under his care. There was nothing peculiar in the first case, except that the disease first attacked the nostril, which remained impervious for ten days. The exudation extended to the posterior nares and fauces.

Local Treatment.—Weak solution of carbolic acid injected into the nostril three or four times a day. The throat was penciled twice a day with a mixture consisting of

℞ Liq. ferri persulphatis...... ʒ i.
Glycerine.................. ʒ ij.
M.

This mixture did not irritate, and the doctor believed it to be beneficial.

Constitutional Treatment.—The child was ordered teaspoonful doses of the following mixture, and the most sustaining diet:

℞ Quin. sulph................ ℈i.
Tr. ferri muriat........... ʒ i.
Syr. tolu.................. ℥ ijss.
M.

S. Teaspoonful four times a day.

The patient recovered. The doctor made the most careful exploration of the house and premises, but was not able to find any local cause. An attempt was made to quarantine the other children in the family, but the effort failed and another child was attacked. The disease in that case appeared first in the fauces. Treatment as above, and recovery followed. In each of these cases during the first few days there was considerable febrile action, and the patients were partially delirious.

The third case occurred in a girl, æt. seven years, who took the disease at school. It appeared first in the fauces, and was relieved by the local and general treatment mentioned, when all at once she gave alarming symptoms, indicating an invasion of the larynx.

Four mornings in succession the local mixture was applied to the larynx by means of a curved probang and sponge, and three times pieces of membrane were brought away. No membrane following the sponge the fourth time, it was discontinued. Everything possible was done to nourish the patient and sustain her strength, and a chief reliance made upon steam as a local measure for removing the membrane. A flexible tube, twelve feet long, was attached to the spout of the tea-kettle, whose cover had been sealed by means of india-rubber strips. The length of the tube permitted the steam to be cooled sufficiently, so that the patient was able to breathe it almost continuously. This inhalation was maintained *twelve* days, and at the end of that time all alarming symptoms had passed. At present there is complete loss of voice, but the patient is doing well.

The fourth case, a little girl æt. four years, had a profuse epistaxis on the third day, which resisted repeated attempts to arrest it, and she succumbed to the disease and the effect produced by the hemorrhage.

DR. BURRALL directed attention to thorough sanitary regulations as bearing upon the great prevalence of sore throat in certain localities in this city, especially along the line of old watercourses.

DR. PEASLEE mentioned an instance as related to him, where a boy was attacked with diphtheria while at school, and *thirteen* students who attended school in the same room were also attacked, and six died. In the adjoining room, however, also occupied for school purposes, not a single case occurred. In such an instance it would seem as though there was some local cause, which suggests that there should be the most careful inspection of the premises when the disease makes its appearance.

DIAGNOSIS OF PUERPERAL INSANITY.

DR. BURRALL spoke of the difficulty in determining, in certain cases of pregnancy, whether the woman is in the commencing stages of insanity, or whether her actions are actually dependent upon a bad temper. Every practitioner must be more or less familiar with such cases.

DR. JOEL FOSTER regarded that peculiar crossness, irritability, a sort of ability to raise the (his satanic majesty) upon the least provocation, and sometimes without provocation, as a very common condition among pregnant women.

DR. PEASLEE remarked that it was one of the perplexing questions to decide, whether there is foundation for such actions on the part of pregnant women in the peculiar condition incident to pregnancy, or whether they are due to sheer ugliness; for a woman may have puerperal mania before confinement as well as subsequent to parturition. In this condition she will manifest the greatest hatred to those whom she loves the best, and will perpetrate the greatest meannesses. Yet there are cases where it would seem as though the demonstrations of these women were made up of one-eighth hysteria, one-eighth insanity, and three-fourths deviltry. There is an evident pleasure in annoying those whom they should love the best, and they will sometimes indulge in attacks of personal abuse, striking and kicking in a manner that is not easily explained upon any other ground. It is, perhaps, difficult to say whether it should be called insanity or not; but he was quite of the opinion that deviltry is at the bottom of a good share of the demonstration, and in any event that little sympathy and much discipline is the best thing that can be done for the woman. She should be brought to terms by all concerned.

DR. LUDLUM mentioned a case of facial erysipelas, which was interesting to him from the fact that the nose was swollen for several hours before the erysipelatous blush made its appearance.

He also mentioned a case where a prisoner succeeded, by introducing tobacco into the rectum and wearing a pad in the axilla, in producing slowness of the pulse sufficiently marked to enable him to escape from performing the hard labor to which he had been sentenced.

He also referred to the removal of foreign bodies from the ear, and insisted that they should never be removed by anything except a stream of water from a syringe. The reason for so doing lay in the liability to produce injury to the auditory canal by any other method.

(To be continued.)

Correspondence.

HOSPITAL APPOINTMENTS.

To the Editor of The Medical Record.

Dear Sir:—Your remarks upon our system of hospital appointments are very timely, and as the sole hope of a change in it lies in the formation of a public, or rather a professional opinion which will render the continuation of the present condition impossible, I venture to give a push to the ball you have started.

But it is not the mode of appointments alone I would arraign. That is but a part of a faulty whole, and I propose to show that our hospitals are far from doing what they should, either for the physicians, students, or patients, and that these defects can be remedied by a change in their management.

In my judgment, the most efficient cause of these evils is the system of service. Each physician goes on duty for two or three months only, and during his term of service visits his wards twice or at most three times a week. He comes whenever he finds it most convenient, meets his "House," asks what patients the latter would like to have him see, visits those and the few others in whom he has some especial interest, and goes away after having seen not more than a quarter of those confided to his care. If he is a young surgeon he performs most of the operations, but as he advances in years and experience he leaves much of this work to his assistants, and contents himself with the rôle of "counsellor and friend." This lack of interest is not entirely his fault. His wards are large, his term of service short, the history of his patients utterly unknown to him when he goes on duty, and their treatment under his control only for what is in most cases an inadequate length of time.

What is the effect of this upon the patients, the house staff, and the physician himself? The patients are to all intents treated by the internes. A general line of treatment may be suggested by the visiting physician, but all the details and modifications are attended to by the former. In short, the patient is treated, and in many cases operated upon, by a young gentleman who is undoubtedly intelligent, but whose knowledge is limited to what he can assimilate from his text-books and to twelve months' at most, sometimes only six months' hospital experience in a subordinate position. If under these circumstances the patient is as well cared for as he would be if seen daily by the visiting physician, it can only be because years and experience bring no profit, and the average graduate is as good as the average practitioner.

Now, as to the resident staff. Twice a year each hospital turns out half a dozen young men, each of whom has had in it on an average a year's experience as assistant, and six months as "House." During the latter, he has had almost the sole charge of from 100 to 150 patients—a responsibility much too great for his years and his experience. He has been called upon to read before he has learned to spell; he has been brought daily face to face with problems, in the solution of which he has had no experience, and to which he can bring only theoretical knowledge. As one of the consequences, he has tried every new remedy, every novel mode of treatment which has come under his notice in the periodical literature, and has developed an enthusiasm for some of them which he is surprised his elders do not share.

Compare him for a moment with one of his foreign homologues, and for convenience let us take the French. The Hotel-Dieu, at Paris, has 800 beds, and 15 internes or chefs de clinique, each of whom has under him two internes, and an indefinite number of assistant dressers, known as *stagiaires* and *bénévoles*. The latter are all students, and their attendance is compulsory, for they are not admitted to the annual examinations except on presentation of a certificate of a certain number of days' attendance at a hospital. Each interne in a medical service has charge of 70 patients, each one in a surgical service has about 35. In many of the hospitals clinical lectures are given every day, and in most of the services an examination of the new patients and diagnoses of their disease is made by the attendants in turn, in the presence, and under the control of the chief. Are not these advantages far superior to those enjoyed by our young men, and are not the opportunities furnished by the hospitals extended to a much greater number than by our system?

The 800 beds of the Hotel-Dieu are in the charge of eight physicians and three surgeons, each of whom visits his wards every day in the year, except during a short vacation in the summer or autumn. The greater value of this continuous daily service to the physician needs no demonstration, and its effect in advancing medical science is equally clear.

Quite recently one of our best known surgeons found it necessary to withdraw his indorsement from certain statistics which he had published, relying upon measurements which he supposed to have been made by his house-surgeon, but for which he could afterwards find no regular authority. These statistics, if properly collected, would have had a certain value; but they are valueless now, and others like them will be. Measurements made by a surgeon have a value determined by his character for accuracy and judgment; those made by an unknown young man are comparatively worthless, because his enthusiasm, his "personal equation" has yet to be found out: and in our hospitals such statistics have to be made up by the young men because the surgeons are not on duty long enough to see the beginning and the end of their cases.

Again, I have heard that a surgeon in one of our hospitals, not long ago, amputated the limb of a patient a few days after his predecessor had resected one of its joints, and as the predecessor was proud of his operation, and waiting anxiously for the result, it is not surprising that a coolness grew up between the two gentlemen, which, however, is of less importance to us than is the loss of what might have been a valuable experience.

Now, Mr. Editor, is it not evident that our system is bad (comparatively) for the patient, the student, and the physician; that it falls short, not only of the ideal, but also of the possible?

Let us, then, have continuous service and competitive examinations. Make the places worth holding, both as a means of self-improvement and as a proof of superiority. The objection which you urge, that an impartial and competent examining board could not be found, is not, I think, well founded. Make the board a small one, and have the examinations public. The publicity and the concentration of the responsibility will prevent partiality, even if the conscientiousness of the judges should be in default, as I do not think it would be.

Let those of us who are without influence have a chance, and make it impossible for one man to hold eleven appointments. X.

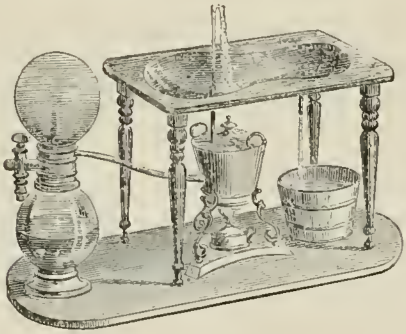
Dr. Hebra has been suffering with pleuro-pneumonia, but is nearly recovered.

New Instrument.

THE ARTIFICIAL "BUBENQUELLE" OF EMS.

Mr. Thomas Warker, of this city, has devised an ingenious apparatus for the purpose of imitating the douche of the Kräehnchen spring at Ems. The spring in question, as well as one of similar composition at Plombières, in the east of France, has long been noted for the value of its waters in the treatment of sterility and chronic uterine diseases. The mode of application of these waters at Ems is quite primitive, and consists simply of a bath-tub, in which is a stool with a perforated bottom, through which the douche is conducted by means of a pipe. The patient sits in a straddling position, when the douche finds its way into the vagina. The spring itself being somewhat higher than the bath in question, supplies the force to the vaginal jet by means of hydrostatic pressure.

Mr. Warker, in his apparatus, has very successfully fulfilled all the conditions necessary to insure the desired results of a local application of water of the Ems spring. This water itself is made artificially, and is contained in a glass fountain charged with carbonic-acid gas. To this receiver (as will be seen in the cut) a pipe is connected which passes through a water-bath and thence to the bath above, across which the patient sits. The amount and force of the jet is regulated by a valve in the receiver, while the alcohol lamp underneath the water-bath raises the temperature to the desired degree. The surplus water escapes in a vessel provided for the purpose. The extremity of the jet-pipe is supplied with different kinds of nozzles to suit the different requirements of the volume and character of the stream. We doubt not that the apparatus in the hands of medical men will answer many very useful purposes, and will prove a very efficient method of treatment in all those cases of uterine diseases in which vaginal douches are indicated.



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CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Dec. 5th, 1875, *to Dec.* 11*th*, 1875.

Sternberg, Geo. M., Surgeon.—Promoted Surgeon, to date from Dec. 1, 1875, vice Peters, retired.

White, R. H., Assistant Surgeon.—Assigned to duty as Attending Surgeon at these Headquarters, San Antonio, Texas. S. O. 225, Department of Texas, Nov. 29, 1875.

Peters, De Witt C., Surgeon.—Retired from active service, to date from Dec. 1, 1875. S. O. 247, A. G. O., Dec. 6, 1875.

NAVY.

November 28.

Wilson, Joseph, Medical Director.—Ordered to special duty at Philadelphia, connected with the Centennial.

Jones, John A., Assistant Surgeon.—Ordered to the receiving ship *Wabash* at Boston.

Harvey, H. P., Assistant Surgeon.—Ordered to the Naval Hospital at Philadelphia.

November 29.

Siegfried, Charles A., Assistant Surgeon.—Ordered to examination previous to promotion.

Forebee, N. McP., Assistant Surgeon.—Ordered to examination previous to promotion.

Streets, Thomas H., Assistant Surgeon.—Ordered to examination previous to promotion.

Buel, J. W., Assistant Surgeon.—Ordered to examination previous to promotion.

Smith, Howard, Assistant Surgeon.—Ordered to examination previous to promotion.

Bransford, John F.—Assistant Surgeon.—Ordered to examination previous to promotion.

Simons, M. H., Assistant Surgeon.—Ordered to examination previous to promotion.

Waggoner James R., Assistant Surgeon.—Ordered to examination previous to promotion.

December 5.

Fitzsimmons, Paul, Assistant Surgeon.—Ordered to examination for promotion.

Harvey, Harry P., Assistant Surgeon.—Ordered to examination for promotion.

Parsons, Remus C., Assistant Surgeon.—Ordered to examination for promotion.

* * *

New York Society for the Relief of Widows and Orphans of Medical Men.—The 33d Annual Meeting of this Society was held at the rooms of the N. Y. Academy of Medicine, 12 West 31st street, on Wednesday, Nov. 24, at 8 p.m.

The following named officers were elected:

President—Dr. John R. Van Kleek; *Vice-Presidents*—Dr. Jas. Lenox Banks, Dr. Samuel T. Hubbard, Dr. Isaac E. Taylor; *Treasurer*—Dr. Jas. W. G. Clements.

Managers for a term of three years—Drs. Jared Linsly, Gouverneur M. Smith, Samuel S. Purple, Thos. F. Cock, Joel Foster, Edw. L. Beadle, and Jas. O Smith.

The permanent fund of the Society amounts to $107,032.87. The Society extends semi-annual aid to seven widows and five children of deceased members.

* * *

Weekly Bulletin of the Meetings of Medical Societies.

[The Medical Record *is published every Saturday. Notices of meetings, lectures, operations, etc., intended for publication in this bulletin should be received at the office,* 27 *Great Jones Street, one week previous, to insure their appearance.*]

Monday, Dec. 20.—N. Y. Academy of Medicine, Section of Obstetrics, etc., No. 12 West 31st st.—N. Y. Society of Neurology and Electrology, election.

Wednesday, Dec. 22.—N. Y. Pathological Society, College of Physicians and Surgeons, 23d st., corner of Fourth av.

Friday, Dec. 24.—N. Y. Medical Journal Association, No. 12 West 31st st.

Original Communications.

BACTERIA: THEIR NATURE, AND RELATION TO DISEASE.

By THOMAS E. SATTERTHWAITE, M.D.,
SURGEON TO THE DEMILT DISPENSARY, ETC.

(A portion of this paper was read before the Medical Society of the County of New York, Nov. 22, 1875.)

PART II.

THERE is one fact to which a mere allusion has been made, and another that has not yet been mentioned, both of which must be briefly stated, otherwise we shall not be prepared to understand the relation of bacterial organisms to certain definite forms of disease.

The one is the relation of bacteria to putrefaction, and the other to septic processes. It is generally known that Pasteur formerly held that fermentation and putrefaction were initiated by organisms, but it appears, according to excellent authority,[*] that he has been obliged to alter these views, for it has been shown that "grapes suspended in an atmosphere of carbonic acid will undergo fermentation so as to generate alcohol and other products, even without the presence of torulæ and other organisms." The experiments of Le Chartier and Bellamy have also shown that in some forms of fermentation independent organisms are often at first absent, though they afterwards make their appearance.[†]

In regard to putrefaction, Hiller[‡] also has shown that if fresh eggs be put into a basket with rotten ones, the former will soon be contaminated, showing that contamination takes place through the air. He then injected fresh eggs with a fluid containing bacteria, but not putrid; the eggs remained unchanged, showing apparently that bacteria of themselves do not necessarily produce decomposition.

But it is alleged that in the processes called septic there is always evidence of the presence of bacteria, the intensity of the affection and the limits of its spread having a close relation with the existence of such bodies. These processes may be advantageously studied by inoculating animals with various putrescent substances, such as infusions of muscular tissue, the sputa of phthisical patients, the scrapings of anybody's tongue, which soon become very offensive. These all, when introduced into the tissues of animals, such as rabbits, produce a peculiar train of symptoms, characterized by extreme constitutional disturbance, culminating frequently in death, most often at the end of forty-five to forty-eight hours, the lesions being a focus of inflammation with extensive effusions of serum about it, thrombosis of vessels, and if death do not occur at an early period, the formation of a foul deposit, consisting of pus and granular débris, with which are associated myriads of bacteria, in more or less active motion. Whether these putrescent substances or the fluids of septic diseases are inoculated, the results are about the same.

These poisonous substances generally, if not always, contain bacteria, or are a favoring medium for them, and experiments have shown conclusively that when sepsis is produced by them, its lesions are accompanied almost invariably by a coextensive spread of bacteria.

Upon this point there can be no doubt; but the question has always remained whether the poisoning is of itself produced by the bacteria, or some other substance present, but not bacterial in nature.

The experiments of Panum,[*] of Copenhagen, have been directed towards the solution of this question, and they appear to be the most complete that have been recorded. He seems to prove that influences such as will kill bacteria (for the rod forms do not appear to be able to withstand the temperature of boiling), do not prevent the inoculability of septic matters. He boiled putrid matter that had produced infection in rabbits, maintained the boiling temperature eleven hours, and then subjected it to various other conditions, but the liquid still was virulent.

Onimus[†] and Hiller[‡] have worked in the same direction. The former claimed to have shown that the poisonous quality of putrid blood might be independent of bacteria or vibriones (by vibriones meaning probably some form of the bacteria already described, and not the long and bent filaments that have lately received this name). He also showed that blood with these organisms might still be innocuous. He concluded that the poison was an albuminous substance, though this conclusion does not appear to have been warranted by his experiments.

Hiller proposed to himself the following questions:

Do bacteria possess the property of exciting inflammation when they are present in living tissue?

Or, if in the blood, do they cause fever?

Can bacteria multiply in living tissue?

Do they have the capacity of penetrating living organs?

His experiments were conducted on animals, and he used the bacteria obtained from various kinds of decomposing substances. The animals exhibited no septic symptoms, though on the second day the temperature rose, but not over 2° Fahr. On the third day, when the points inoculated were opened and examined, some shrivelled bacteria were found, but on the eighth day there were none. When bacteria were introduced into the blood currents they gradually disappeared, and finally could not be found at all, though in blood exposed to the air they multiplied rapidly. Two points have thus come vividly into notice.

1. The symptoms and lesions of putrid poisoning just described, and those of septic diseases, as frequently described, in so far as experiments on animals are concerned, resemble each other so closely that no differential marks can well be shown.

2. That bacteria are not necessarily associated either with putrid infection or sepsis.

It is convenient here to notice a plan that has been adopted by some experimenters, by which very important advances have been made in determining the nature of the poisonous matter, though chiefly in vaccine virus. It appears that Chauveau was the first to carry out the plan successfully, though Sanderson had previously employed a less perfect method.[§] It had in view the absolute isolation of the virulent principle, the method being *diffusion*. Sanderson attempted to determine if the poison of the cattle plague was crystalline or colloid. He passed the virulent fluids of these animals through parchment-paper; the diffusate was wholly innocuous, the liquid that remained behind very poisonous. He therefore argued that the *contagia* were colloid. This conclusion, however, was unwarranted, as also that of Onimus in the plan already described, because it is now known that albuminous substances will sometimes pass through a membrane in small quantities, especially in the presence of the carbonates and phosphates (Graham* and Schumacher†), and therefore neither Onimus nor Sanderson could conclude that the fluid which remained behind the membrane, and was poisonous, owed this quality to the albuminous substance, for it is very probable that there was also albumen in some form in the clear filtrate that was harmless. This error was early observed by Sanderson.

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[*] Bastian, Lancet, April 10, 1875.

[†] Loc. cit.

[‡] Centralblatt, 54, 1874.

[*] Virchow's Archiv, LX., iii., and iv., 1874.

[†] Lond. Med. Rec., Nov. 19, 1873.

[‡] Allg. Med. Central. Ztg., 2, 1874.

[§] Twelfth Report of the Med. Off. of the Privy Council, 1869, p. 2 2

The precise points in Chauveau's inquiry were, whether in vaccine lymph the infectious principle resides in the leucocytes, the liquid, or the minute particles contained in it. He first employed a method called *subsidence*, which had the effect of separating the leucocytes. Ten volumes of water were added to the lymph, and then the mixture was allowed to stand. The leucocytes thus separated produced no lesion. To decide between the granules and the fluid holding them, he employed filtration and then subsidence, but was unable to separate them. His *special diffusion* method, however, was successful. His plan was as follows:

Taking the vaccine lymph in the capillary tube in which it was collected from the arm, he introduced it into an upright test-tube, of the form represented in Fig. No. 2. Great care was taken that the liquid did not touch the sides of the glass in the act of filling. Water to the depth of a few lines was then added, with similar precautions, and the whole allowed to stand for twenty-four hours. Although no membrane was used, yet it is said that if proper care was exercised, the liquids did not mix, except in the immediate neighborhood of the surface of junction.

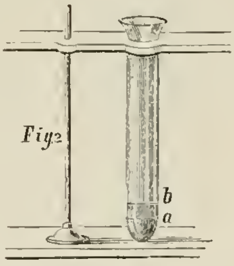

Fig.2

All of the soluble constituents of the vaccine passed upwards into the water. At the end of the twenty-four hours the most superficial layer (*b*) was removed by dipping into it the end of a fine capillary tube. The liquid in the tube was then examined microscopically and tested for albumen. Now albumen, though held to have the least diffusibility of chemical compounds, was found in the water, the inference being therefore that no other soluble chemical matter had been left behind. This upper stratum was used for the inoculation of heifers and children, but without success, while the lower stratum (*a*) produced the disease. It therefore appeared that the poisonous quality did not reside in the leucocytes, the albumen, or other soluble chemical bodies, the conclusion being that it was in the granules. (It may here be stated that in all these poisonous liquids, the clear fluid—such as passes through a porous clay filter—is never inoculable). Sanderson carried out this method with more attention to details, and corroborated Chauveau's conclusions in the great majority of his experiments. The fluid that was poisonous was not turbid, as it is when it contains the ordinary bacteria, but it *did* contain granules, though they were so small as to be recognized with difficulty by the ordinary powers of the microscope.

One of the very best methods to determine the character of *contagia* is that used by Panum in his inquiries into the nature of the virulent principle in putrid infection.

The method is not difficult, and promises good results in other inquiries of a similar nature.

Panum took a putrid infusion that by inoculation on animals had been shown to produce the symptoms of sepsis, then boiled it for eleven hours, and after filtering it several times, eliminated the bacteria, as he claims, but it was poisonous. Having then taken this clear liquid and evaporated it to dryness, and extracted it with alcohol, the alcoholic fluid extract was inoculated, but no infection followed. The dry alcoholic extract or precipitate was then taken, and an aqueous extract made of it. It was inoculated, and produced septic symptoms. He therefore concludes that there exists in decomposing substances a determinate chemical substance which (*a*) is not destroyed by boiling; (*b*) is soluble in water, but (*c*) is insoluble in alcohol; though he is uncertain as to the nature of the poison, thinking perhaps it is secreted from the bacteria, and perhaps that it arises from the decomposition of albumen. He alludes to the experiments of Bergmann, who separated the bacteria from Pasteur's fluid, injected them, and got up sepsis. These same results may be observed when the bacteria from Cohn's nutrient fluid are filtered out and inoculated.

But it must be remembered that it is by no means probable that the bacteria alone are filtered out. In such a fluid, as also in Cohn's, there is organic matter; in fact the tartrate is in both, and in the fermentation which takes place soon after the fluid is made, there are a variety of new chemical combinations some one of which may be poisonous and attach itself to the bacteria, which may then be carriers of the poison, though not poisons themselves. Such arguments might be urged by those who advocate the physico-chemical theory of disease. But even this theory is unnecessary, for, as we shall see further on, we have no means of separating these minute organisms from other particles of similar size which may represent the virulent principle.

There is one point which may be noticed here, which is, that the existence of a septic condition has sometimes been founded on the temperature of the animals; but this, as shown in some preliminary experiments by Dr. Curtis and myself, may prove very unreliable. For if the tube were introduced into the rectum, as is most convenient in rabbits, the temperature was much affected by the distance it was inserted, and variations often took place for which there was no assignable cause whatever; in fact the injection of various substances beneath the skin did not exhibit thermometric results that were accorded with the character of the material used. The most reliable symptoms of infection appear to be the lesions produced by the inoculation of septic matter. This was found to be the case by Dr. Curtis and myself in a series of comparative experiments made with another object in view. The method of performing the experiments is as follows: An incision is made over the thigh of a healthy rabbit, and the muscular bundles being cut into, the material, if solid, is inserted there, the muscular fibres drawn over it, and then the edges of the skin wound are brought together. If the material be fluid, injection is made at the same point. The external wound in all cases healed kindly by adhesion, but when any putrid matter or unhealthy animal tissue was introduced, there would be intense inflammation at the point of inoculation, with thrombosis of vessels and extensive exudations in the neighborhood, death frequently ensuing about the end of the second day, and always, if time enough elapsed, giving rise to a thick, yellowish-white deposit, consisting of pus, granular débris, and imperfect forms of connective tissue, and *generally* bacteria in large numbers. At a later stage this deposit would soften, increase in amount, and give rise to a foul ulcer, which would continue to discharge for many weeks, if the animal did not sooner die during the exhausting discharge, with symptoms of diarrhœa, loss of appetite and emaciation. These phenomena are peculiarly those produced by the introduction of organic matter, especially animal, into the system, and are wholly unlike those produced by chemical irritants or foreign bodies, as experiments have shown. Injection of alcohol in considerable quantity, and inoculation of dry sand, previously superheated, produce no lesions of any note.

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* Proc. Roy. Soc., 1861, Vol. ii., p. 243.

† Physik der Pflanzen, p. 128.

To determine the nature of this poison, resort was first had to filtration through common filter paper, but the results were not always uniform, though it appeared as if there was less virulence in the liquid that passed through several thicknesses of paper, yet the quality of this paper was found to vary, for sometimes no bacteria passed through a single thickness, and again numbers of them passed through four thicknesses.

Dr. Curtis then devised an apparatus by which liquids were passed through porous clay. The accompanying diagram (Fig. 3), made with Dr. Curtis's permission, is a pretty faithful copy of the original.

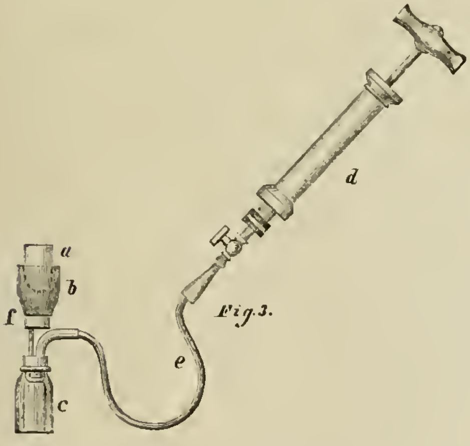

Fig. 3.

It consists of a porous clay cylinder, or cup (*a*), over the bottom of which is drawn a bit of rubber tubing (*b*), which is thick, and grasps it firmly; into the opposite end of this bit of tubing is fitted a rubber cork (*f*), through which a glass rod passes into the interior of the rubber tube. This rod is also connected with, and passes through another cork into a glass jar or receiver (*c*), from which the air is exhausted by the exhausting syringe acting through the fine rubber tube; when a liquid is placed in the porous cylinder or cup and the air is exhausted from the glass jar, the liquid passes through the bottom of the cup and stands in beads or drops on the bottom of the cylinder, from which it may be collected without much difficulty.

In carrying out these experiments it was found that the clear liquid that was obtained in this way from maceration of tongue-scrapings in water, did not prove poisonous, though the tongue-scrapings were very poisonous.

The poisonous fluid always contained granules, though it did not always show the rod forms; indeed these might be removed in some instances by filtering through from four to eight thicknesses of paper, and yet the liquid was poisonous.

These experiments seem to corroborate those of Sanderson, and to indicate that the *materies morbi* lies in the granules.

Are, then, these *particulate* bodies bacteria, or other solid matters? This indeed is a difficult matter to decide, for it has been found almost, if not absolutely, impossible to separate bacteria from the other particles, with which they are so apt to be associated.

Now, if bacteria, these must be the minute forms so often described as microbacteria, microzymes, etc., but we must remember that no definite classification of these bodies has yet been made, even Cohn leaving them indefinite, so that from bare inspection by the microscope we are not able to diagnosticate them. Nor have we found any coloring matter that shows them satisfactorily. A method was, it is true, proposed by Letzerich[*] to color his "diphtheria micrococcus," but Hiller has shown conclusively that this method (with iodine) is utterly unreliable, for the very rule he adopts causes a deposit of granular iodine, which has no microscopical characters by which it may be distinguished from the minuter organisms, if present: nor have chemical means given any satisfactory results; for example, caustic soda and potassa and ammonia certainly affect bacteria but little, though they destroy most animal tissues; but they also leave certain granules unaffected, such as are found in the normal blood, which is supposed to contain no bacteria.

There being, therefore, no micro-chemical means of recognizing these bodies, attempts have been made to cultivate them, so as to see whether they are capable, as claimed, of developing higher forms. It has already been noted that Billroth speaks of the "Dauersporen," or lasting spores, as bodies that have great powers of withstanding various influences, but which when placed in sealed flasks give rise to bacteria. Can these be the same as the infectious principles that Burdon-Sanderson alludes to, and were contained in Panum's watery extract of an infusion, that had been filtered, evaporated to dryness, and extracted with boiling alcohol?

The following questions presented themselves before the final experiments were made on this matter:

1. Is the poisonous matter in putrid infusions destroyed by boiling and evaporation to dryness?
2. Is it soluble in alcohol or precipitated by it?
3. Is it soluble in water, after boiling in water and absolute alcohol?
4. If there are granules in the fluid that prove poisonous, will they breed bacteria?

These experiments, done with the co-operation of Dr. Edward Curtis, were in the main those of Panum; the liquid used was obtained by making an infusion of calf's liver that had been allowed to become putrid; the liquid and solids used were inserted in the muscular tissue of rabbits, and examined at the end of seventy-two hours.

Having established, as in previous experiments, that the putrid solution itself produced septic symptoms, and that the clear filtrate which had passed through the porous cylinder was innocuous, and also that the fluid which had passed through filter paper of different thicknesses was at times poisonous and at others not, I shall mention simply the experiments relating to the questions just enumerated.

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[*] Virchow's Archiv, LXII., iii., 1875.

Does continued boiling and evaporation to dryness destroy the virulence of a putrid and virulent fluid?

About nine ounces of the filthy infusion were boiled down for about five hours over a water-bath, the fluid having first been filtered so that it was quite clear to the eye. The residue was then dried and inoculated. On examination of the parts, seventy-two hours afterwards, there was found a collection of yellowish-white matter at the point of inoculation, such as had often previously been noticed in inoculation with various putrid or septic matters. In answer to the second question, *Is the poison soluble in alcohol, or is it precipitated by it?*

The residue, after continued boiling in water, was then boiled with absolute alcohol and filtered. The alcoholic fluid extract was then injected, but of the two experiments one produced a lesion and the other did not. The solid residue or alcoholic precipitate produced the customary symptoms. It was therefore uncertain whether the poison was precipitated by alcohol.

In answering the third question, which may be stated thus, *Does the aqueous extract of the dry alcoholic residue prove poisonous?* it may be said that this matter had been twice boiled in water and once in absolute alcohol. Examination of the thigh at the end of seventy-two hours showed that the same lesion was present as in the case of the unfiltered solution. There was a disseminate collection of the same yellowish-white material, with extensive exudation in the neighborhood, as observed when the matter had "taken."

In answer to the fourth question, *If there are granules in this aqueous extract, will they produce bacteria?* the final experiment was done.

It may be stated that all filtering through anything short of porous clay showed that the fluid contained granules, and in this watery extract of a substance that had been boiled in water and absolute alcohol, and washed with the latter, filtered several times, there still remained bodies of minute size, and in some instances rod-bacteria * in small numbers. To decide whether these minute bodies were capable of breeding bacteria, the "vacuum-tube" experiments were tried.

It may be stated, before going on to this experiment, that it has been definitely ascertained that fluids which are excellent media for bacteria, as Cohn's fluid, for example, will, if boiled a short time and then received into these tubes under certain conditions, not give rise to bacteria—the condition being merely that the tubes have been first superheated, their necks being drawn out and bent down, and then sealed, the air having been in great part expelled. These experiments I have had an opportunity of verifying.

The exact method of performing them was as follows: Glass tubes of about one-third of an inch in diameter were heated in the flame of a gas-lamp until one end was hermetically sealed; the flame was then passed along the tube, gradually heating it to redness, and then it was melted at about three inches from the sealed end; the melting portion was then bent round and drawn out into a fine point. Here, then, if this method was properly conducted, we had superheated the tube, expelled most of the air, and sealed it at both ends. Such is a "vacuum tube." The aqueous fluid, then, to be tested for bacteria, was heated to boiling, and at this temperature the vacuum tubes were immersed deep in the liquid; the delicate extremities were then broken off far below the surface; the fluid immediately rose into the tubes, which were then slowly withdrawn from the vessel, taking care that the delicate nozzle of each was received at the level of the fluid into a pledget of cotton, until each tube was placed in a vertical position, with the nozzle downwards; this latter precaution was designed to avoid the possible contamination of the liquid with the bacteria of the air while the tube was being placed in position. Once, however, in position, it appears to make little difference whether these tubes are exposed directly to the air or have cotton over the mouths of the tubes. In this way eight tubes were filled, four of them being stopped with cotton. As a controlling experiment, that is, to show that bacteria under such conditions will grow, four other tubes were similarly filled with the same liquid—though not, of course, hotter than the temperature of the body—but to which a few drops of bacterial fluid had been added to contaminate it.

Now, this fluid, so contaminated, did not show to the naked eye the characteristic appearance of bacteria, that is, it was not turbid; but we know that if bacteria are going to multiply they will show it by the clear fluid becoming turbid in less than forty-eight hours. This *controlling* experiment seemed to show that bacteria would grow and multiply in this kind of "vacuum tube." Now, as to the question, *Did any such growth take place in the suspected fluid—the watery extract—that proved poisonous?*

At the end of seventy-two hours the fluid in the four contaminated liquids was turbid, and to the microscope was swarming with bacteria in the most active, independent motion.

Of the eight tubes filled with the aqueous extract, but one was at all turbid, and this merely showed a slight film upon the surface. Examined microscopically the clear fluid contained no bodies in motion, but a few motionless and shrivelled rod-bacteria.

It is proper to say here that subsequent examinations showed that of the remaining seven clear tubes several became contaminated, not turbid, but a thin pellicle formed on the surface; but others remained clear when last seen, and as the tubes with the longest necks were the clear ones—length and fineness of the neck being necessary to the experiment—it seems not improbable that some error was committed in manipulation, for it is almost impossible to carry out all the necessary precautions in each case. *It remains, however, as a positive fact*, that some of the tubes did not exhibit bacteria when bacteria would grow naturally under such circumstances. The failures, it is natural to suppose, were such as were to be expected under the conditions.

The following results appear to be authorized by the foregoing experiments:

1. That *putrid matter*, when introduced into the system, is capable of producing a well-marked train of symptoms, which are extraordinarily like those generally known as *sepsis*.

2. That the poisonous quality does not reside in the absolutely clear liquid, when entirely freed from granules.

3. That the poison is sometimes separated by coarse methods of filtration, that is, through common filter paper, though on this point the results were not sufficiently uniform to establish certain conclusions.

4. That continued boiling and evaporation to dryness will not destroy the poison.

5. That continued boiling and evaporation to dryness, and boiling with absolute alcohol, will not destroy the poison.

6. That the dry alcoholic extract, freed of alcohol

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* These were doubtless dead, as they cannot survive boiling.

by evaporation with heat, was poisonous. (The liquid alcoholic extract furnished uncertain results.) So far as this experiment may be relied upon to show the albuminous nature of the poison, it is uncertain, for while the alcoholic precipitate (in which, doubtless, the albumen would be) produced poisonous results, it still remains uncertain whether the liquid alcoholic extract was poisonous or not.

7. That of putrid matter which, after several filtrations, was boiled down to dryness, then boiled with absolute alcohol, again dried and extracted with water, the filtrate was poisonous.

8. That this aqueous extract failed in a number of instances to produce bacteria, under circumstances which were favorable to the development of bacteria; and hence the granules, which are the bodies most likely to represent the poisonous principles, appear not to be bacteria or their spores.

I regret that the unavoidable haste with which this paper was completed prevented these latter experiments being carried out with desirable fulness, and that the results, especially with reference to the development of bacteria in these poisonous infusions, can only be regarded as preliminary. If the results in such cases corroborate those just stated, then it would appear that the evidence against bacteria, as the causes of putrid infection, is almost, if not completely, conclusive.

But even if the friends of the germ theory were to find a different state of things—that the vacuum tubes were filled with bacteria—this can give them little satisfaction. For in all such infectious fluids we find granules, or minute microscopic bodies; but since as yet we have reached no method of distinguishing them, we can never be sure that it is not these other bodies that cause the trouble, while their "micrococcal companions" are occupying themselves with rapid multiplication.

And now for the most important general arguments brought forward in favor of the germ theory in its application to various affections.

1. It is said of pyæmia, erysipelas, puerperal fever, and hospital gangrene, and such other diseases as are regarded as septic, that there is a very constant relation between the number of the bacteria present and the intensity of the disease, and that where the changes are most active, bacteria are most numerous.

2. The development and rapid spread of such diseases is most easily explained on the supposition that they are produced by living units rather than by anything else we cen conceive of; for it is estimated that the multiplication of bacteria is so rapid that an ordinary bacterium dividing in about one hour, would at the twenty-four hours have originated over 16,000,000 of its kind.

3. No products of the laboratory produce fever, but only such liquids as contain bacteria, or have a fondness for them (Sanderson).

4. The power of retaining active qualities that the poisonous matters show is explainable on the ground of their being bacteria, which have this peculiar property to a wonderful degree, while minute portions of the body, when separated from it, die in a short time.

6. Minute organisms are now generally admitted to be the sole and sufficient causes of diseases, such as scabies, favus, and the like, and our knowledge of various epidemic diseases among plants and animals has led to the general belief that they also are produced by minute organisms.

In reply to these arguments or points in evidence it may be said: 1. That such organisms do unquestionably exist in the diseases referred to, but it is also now known that they occur in health, the entire mucous membrane from the mouth to the anus being often peopled with countless myriads of them in some form or other, and generally in active independent motion. These facts are now generally admitted, as every one who has a good microscope can readily prove for himself.

But it is claimed that bacteria also penetrate the tissues some little distance, at least that they get into the lymphatics from the intestine, which is by no means inconceivable, for it is well known that if persons live continuously in a smoky atmosphere, as in cities where coal is extensively burned, the bronchial glands become the seat of extensive collections of carbon, showing that particles of considerable size can find their way through the lymphatics into the glands.

That bacteria do also get into the general circulation in some of the lower animals is a fact that is now scarcely disputed, and it is further stated by Wagstaffe and others,* that they have seen them in the human blood in health. But that they also are found in other conditions than those of special disease, appears from the fact that they have been found in the pus of acute and chronic abscesses.†

The mere fact that bacteria have a numerical ratio to the intensity of a disease, or its most active changes, may not be anything but a concomitant phenomenon, especially in view of the foregoing facts.

2. In reply to the objection that the multiplication of a contagious matter cannot be compared to anything that is not living, it is said that chemical processes may imitate it, for, according to Bastian,‡ "the crystals of sulphate of soda may multiply when a fragment of such a body is thrown into a complex liquid which contains its component parts, or the liquids of the body acted upon by the original source of contagion may be brought into contact with the various tissues of the body." It does not appear, however, that we are forced to any such assumption as the former.

3. As for the fact that no product of the laboratory produces fever, it is by no means certain that we shall not find such; we must admit, however, that contagious fluids have a proneness for bacteria.

4. These extraordinary qualities that have been noted are, in a measure at least, possessed by certain vegetable poisons, such as woorara, and certain animal poisons, such as that of the cobra, analyzed by Fahrer, of India, and of the rattlesnake, studied by Weir Mitchell. Fahrer has made most extensive experiments, and found of the poison of the cobra that it may be diluted with water, or even ammonia, or alcohol, without destroying its deadly qualities. After keeping it dried for months it was found also to have retained its virulence; qualities which are extraordinary like those observed in the contagious principles of putrid matter, as already noticed.

5. Bacteria which cannot be distinguished in the experiments cited from those of disease, have been introduced into the system in numbers without producing any lesion whatever.

It seems to be definitely proven, in many instances, that the infecting quality of a substance is not destroyed by continued boiling and absolute alcohol, which are known to destroy the reproductive character of bacteria of definite forms, though it will be admitted that it may require more extended observations to determine whether such influences will prevent the development of bacteria from the very minute bodies that are claimed to originate the definite forms.

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* Lancet, May 8, 1875.
† Med. Press and Circ., Mar. 10, 1875.
‡ Lancet, April 10, 1875.

One of the most remarkable facts in this connection was observed by Dr. Edward Curtis, while experimenting on the best method of neutralizing or destroying the poisonous action of putrid substances. Both he and I had established, independently, and, as it appeared to us, satisfactorily, that salicylic acid, in the proportion of 1 to 100, with a little phosphate of soda as a solvent, and carbolic acid of the same strength, have, each of them, the power of preventing the formation of bacteria for a period of two months[*] at least. This known anti-microphytic power of salicylic acid was then utilized to determine if it would also prevent infection if mixed in a concentrated form with such poisonous matters as tongue-scrapings. It was found, extraordinary as it may appear, not to have any effect upon the poisonous quality of the matter, and the lesions, though without bacteria, appeared as usual.

These experiments I believe to have been the first that reached this result in regard to salicylic acid. They were carried out in a somewhat different way by Dougall,[†] of Scotland, as reported in July last, subsequent to Dr. Curtis's experiment. Dougall found that while carbolic acid in concentrated solutions prevented the development of ordinary bacteria, it under certain conditions suspended, but failed to destroy, the virulent properties of vaccine virus.[‡]

In the matter of salicylic acid, confirmation of these results has been obtained from Von Gulik, [§] of Germany; for after many experiments with lymph virus, which, kept in capillary tubes, only lasted with him from fourteen days to a month, it was successfully preserved by him in glycerine about two months, but not more, though salicylic acid kept it over a year.

These experiments, though done with a different view, singularly suggest that these remarkable substances—salicylic acid and carbolic acid—while excellent *preservatives* and *anti-microphytics*, are perhaps not *disinfectants* at all in the strict sense of the term.

Let us now briefly review this question in its relation to a few special diseases, which have been recently investigated with the aid of the most recent modern appliances by scientific experts whose opinions are in every way worthy of respect. I refer to anthrax, or the carbuncular diseases of the French, sheep-pox, small-pox, relapsing fever and typhoid.

The name carbuncular diseases, as applied by the French veterinary surgeons, includes a remarkable class of contagious affections, not very clearly limited, but including such forms as anthrax or malignant pustule, splenic fever, and mycosis intestinalis. All these affections show post-mortem appearances that are extraordinarily similar. Balls of round spheroids are said to be found in the diseased tissues, and rod-shaped bodies in the circulating blood, particularly in the portal vein; the spleen is enlarged, there are hemorrhagic infarctions of the intestines causing the mucous membrane to slough off, extensive serous exudations and infiltrations, and hyperæmic enlargement of the glands in the neighborhood of the affected parts. The appearance of a pustule (malignant pustule) appears to be common in these cases, but is not a constant appearance; all these symptoms often leading to a fatal termination, though the pustule be absent.

It is in these diseases that Davaine called attention to the presence of minute rods,[*] which he called bacteridia. He said that they preceded the morbid symptoms, and when the bacteridia of decomposition appeared the contagiousness of the blood ceased. They were so numerous, according to this author, that it was estimated from eight to ten millions existed in a single drop of blood, and he claimed that he had produced the disease by the inoculation of the millionth dilution of such a drop.

But he was met by a number of opponents, among them Bouley,[†] Gaillard, and others, who contended that the rods were very often absent, and yet the blood without them had infecting qualities. This, with our present knowledge, is not difficult to explain, especially as he gives no special distinguishing marks to separate them from ordinary rod-bacteria, and we know that they may exist in health, especially in the blood of the lower animals. Bollinger himself, an excellent authority, while favoring the view that the disease is due to minute organisms, admits that he has inoculated animals successfully with fluids that did not contain the rods, and he cites Branell to the same effect; Bouley, Leplat, and others also agree on this point. But Bollinger tells us that the infecting fluid always contains spherical bacteria, that is, such minute bodies as by cultivation might produce rods.

This brings us to a point that we have reached in regard to putrid infection. It is clear that the infecting matter is not necessarily in the rods, but *is it in granules which subsequently produce rods?* Let us, however, first glance at small-pox, sheep-pox, and vaccine.

There is probably no subject that has been more closely inquired into by a large number of observers than the contagious principle of these diseases, and it appears to be likely that the alleged forms are the same in all. Some ten years ago it was noticed that vaccine lymph contained minute spheroids, accounts of which were published in 1867–1868,[‡] and to which Cohn gave the name *microsphæræ vaccinæ*.

Their multiplication in the field of the microscope and their chemical properties led them to be regarded as the *micrococcus*. They were found in the early stage of the disease, before the eruption, and hence were thought to have some causal relation with it. Chauveau attempted to separate them from the lymph, and he appears to have shown by his experiments that the virulent principle is both *insoluble* and *non-diffusible*. Sanderson, who followed out Chauveau's researches, while he comes to the conclusion that the matters are insoluble, says that he has found them "filamentous, not jointed, but branching and giving off from their extremities microspheres or conidia, much after the fashion of the penicillium."[§] Cohn found them as small, colorless cells, sometimes in rosary-like chains of eight or more links, and sometimes in heaps.

The weak point in all this evidence, however, is that no sufficient line of distinction is drawn between these bodies and others that would exactly correspond to this description, and that are found in other matters,—an argument which is applicable to the whole doctrine of bacteria in relation to disease.

Relapsing fever is one of the strongholds of those who maintain the microphytic theory of disease. In 1872 Obermeier, of Berlin, published a list of thirty-two cases in which he had observed that the blood was constantly the abode of long filamentous bodies called *spirilla*. They appeared during the rise of the fever, and disappeared with its fall, and again occurred during relapse. These observations have been confirmed by numbers of persons, though denied by Laptschinski.[*]

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[*] At the end of eleven weeks the fluid was still free from bacteria.

[†] Dougall, Glasgow Med. Journ., July, 1875. Sanitarian, Sept., 1875.

[‡] Maclagan had, however, previously shown this. Lancet, April 24, 1875. p. 576.

[§] Allg. Med. Central Ztg., 76, 1875.

[*] Pollender had described them several years previously.

[†] Cycloped. of Pract. Med., Vol. iii., p. 377

[‡] Virchow's Archiv, 41, 42, 1867–1868.

[§] Loc. cit.

This whole subject is so comparatively new that it is almost too early to look for records of further investigations on this point. The spirilla may indeed be pathognomonic of the blood of relapsing fever, but it is certainly a remarkable fact that Ponfick, of Berlin (whose authority I feel, from personal acquaintance, to be of the best), should *not* have found them in the most marked lesions of the disease, for he tells us that the embolized and enlarged spleen is one of the chief causes of death,[†] and yet the emboli did not contain them, as we should have a right to expect. We must finally note that Klein, of London, has announced that in typhoid fever he has discovered peculiar bodies at or near Peyer's patches. These bodies were carried along the lymphatics or blood-vessels of the mucous membrane. Their bodies were often of a yellowish-brown color, and in size from one-fourth to three times the size of a human red blood-corpuscle. These bodies have not, so far as I have known, been seen by any one else.

There is one general fact that may be derived from the review of this question ot contagious principles in small-pox, carbuncular diseases, relapsing fever, and typhoid—and this is, that we have no reliable evidence that the definite forms described are capable themselves of producing the diseases in question.

But assuming, as some would have us believe, that the diseases, if not produced by the filaments, chains, or heaps, are produced by minute forms that will produce such filaments, chains, or heaps, then our conclusions have to be derived from the effect of these granules by testing their physiological action, as has been shown by the use of vacuum tubes, and unless the granules in question respond to such tests as these, we have a right to doubt their being the germs of bacteria.

I have tabulated the following general conclusions, that appeared to be warranted by the investigations made in this direction:

1. Bacteria are certain vegetable organisms which belong probably to the algæ; they are found abundantly in nature, but chiefly where there is moisture.
2. They exist in the body in health, covering the mucous membranes from the mouth to the anus, and sometimes appear to penetrate a certain distance into the system, without causing symptoms of disease.
3. They also exist in putrefying fluids, and in various disease processes, occurring in hot and cold abscesses, in the blebs of erysipelas, and in simple blisters.
4. It is doubtful whether the virulent principle of infective diseases is albuminous.
5. This principle does not reside in the perfectly clear fluid that passes through porous clay. In putrid infectious fluids this appears to be certain. The poison is rendered less virulent by repeated filtrations through common filter-paper.
6. The virulent principle may be boiled for hours, filtered numbers of times in the ordinary way, boiled with alcohol, and again filtered and dried, and yet the watery extract of such a dry residue will produce septic symptoms. It is therefore soluble, or at least suspended in water.
7. The liquid which is thus poisonous may be clear to the eye, but contains granules under the microscope.
8. These granules have not produced bacteria in a number of instances when they were placed in a suitable condition to do so.
9. We cannot, therefore, feel that satisfactory evidence has been brought to show that in any of the diseases or processes enumerated, minute organisms are the sole and sufficient causes of disease.

Progress of Medical Science.

General Atrophy of One Extremity, the Result of Injury.—MM. Desnos and Barié report the following interesting case, from the Hôpital de la Pitié, in Paris: The patient was a man 56 years of age, who, some five years before his admission to the hospital, had his right foot bruised by the wheel of a cart. The wheel passed obliquely across the instep, causing a pretty severe contusion, from which, however, the patient sufficiently recovered in a few days to resume his occupation, though still somewhat lame. Fifteen months after the injury the lameness had not disappeared, and the patient noticed that the limb on the affected side had become considerably wasted; the thigh especially had grown smaller, and the whole limb appeared shortened. On admission to the hospital it was ascertained that the right limb measured, from the anterior superior spinous process of the ilium to the external malleolus, about one inch and a half less than the left. From the anterior-superior spinous process of the ilium to the head of the fibula, the right limb measured one and one-eighth inches less than the left, and from the head of the fibula to the external malleolus the difference between the two sides was three-eighths of an inch. The circumference of the affected limb was markedly diminished both at the calf and at the thigh. Moreover, there was a distinct flattening of the muscles of the buttocks on the atrophied side. At the middle of the calf the difference between the two sides was three-eighths of an inch; just below the patella and condyles of the knee it was three-fourths of an inch. At the middle of the thigh the difference was over four inches, and higher up about one inch. In walking, aside from the lameness, there was nothing particularly noticeable in the gait. The affected limb was much feebler than the other, was easily fatigued, and was incapable of supporting the weight of the body. In standing the patient rested entirely upon the left leg. Certain movements of the hip, knee, and toes, on the affected side, caused some slight pain, and occasionally the patient complained of a crackling in the knee when moved suddenly. When lying upon the abdomen he experienced momentary pain in certain portions of the limb—sometimes in the calf and sometimes in the thigh. In addition to the above symptoms the patient also complained of frequent sensations of cold and pricking, especially in the foot and in the lower part of the leg. Neither anæsthesia nor analgesia could be detected, unless perhaps a very slight diminution of sensibility in the right limb. The skin and nails appeared perfectly normal. The electric contractility of the muscles in the atrophied limb was slightly diminished, most markedly in the muscles on the posterior aspect of the thigh. Of the original injury on the back of the foot no trace whatever remained.

With regard to the pathology of the above case the writers adopt the view that the muscular atrophy which follows traumatic lesions of the nerves is due to the diminution or suppression of a trophic influence derived from the nervous centres and conveyed to the muscles, not by the special trophic nerves of Samuel, but by the musculo-motor nerves themselves. Hence in the above case it is supposed that in consequence of a contusion or laceration of filaments of the musculo-cutaneous and anterior tibial branches of the sciatic, a morbid change was induced at the spinal root of the nerve (Vulpian), which was communicated to the adjoining gray matter, and thence was transmitted to the nervous trunk, causing atrophy of the muscles to which the fibres of the nerve are supplied. It is especially remarkable in this case that not only the muscles, but also the bones, were atrophied.—*Le Progrès Médical*, Oct. 2, 1875.

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[*] Centralblatt, 3, 1875. Irish Hosp. Gaz., April 1, 1875.

[†] Anatom. studien ueber den Typhus recurrens. Virchow's Archiv, May, 1874.

Albuminuria.—In a communication on the above subject to the Congrès périodique international des Sciences médicales by Professor Mariano Semmola, of the University of Naples, the presence of albumen in the urine is regarded as merely a symptom, and one which does not necessarily imply organic disease of the kidney, since it is occasionally met with under purely physiological conditions. Thus the urine may become albuminous after the injection of a considerable amount of albuminoid substances, or the condition may be produced in an animal experimentally by covering the body with an impermeable coat of varnish, thus suppressing the functions of the skin.

S. distinguishes three forms of albuminuria: The first is mechanical, and depends upon increased intravascular pressure from derangement of the renal circulation, and is frequently the result of cardiac disease. The second form is described as dyscrasic. It depends upon a dyscrasia which causes such an alteration in the albumen of the blood that it is rendered incapable of assimilation, and is, therefore, expelled from the economy. Of this nature is the albuminuria observed in the course of tuberculosis and syphilis. In its third form the albuminuria is of a mixed character, partaking of the characters both of the first and of the second forms, the disturbed renal circulation combining with a dyscrasia, and the condition is then known as *Bright's disease.* Its usual cause, it is claimed, is exposure to damp and cold. This operates in two ways: The chilling of the surface causes a determination of blood to the organs in the interior of the body, and congestion of the kidneys results. Secondly, the suppression of the functions of the skin from the same cause gives rise to a dyscrasia in which a portion of the albumen of the blood is prevented from being assimilated, and is discharged with the urine. It is claimed, moreover, that according as the influence of cold and wet is brought to bear upon the economy, rapidly or slowly, will the disease be acute or chronic; in the former case the dyscrasia is more pronounced, while in the latter the chief element is the increased intravascular pressure in the kidneys.

The most important characteristic of Bright's disease, according to the writer, is the diminution of the amount of urea in the urine. No such diminution occurs in the purely mechanical or dyscrasic forms of albuminuria, or at least in a much less degree. Hence it is regarded as a pathognomonic symptom of Bright's disease. The pathogeny and symptoms of the albuminuria produced by alcohol, gout, and scarlatina are declared identical with those of Bright's disease.

In accordance with the above views of the pathology of the disease, the following is the treatment proposed:

1. The patient is enjoined to abstain, as far as possible, from all albuminoid foods, and a milk diet is prescribed.
2. To promote the cutaneous functions hot-air baths are advised, followed by a cold douche, and afterwards moderate exercise.
3. As adjuncts to the above measures large doses of iodide of potassium and inhalations of oxygen are recommended. The ferruginous preparations are esteemed useless, for the reason that they are not assimilated.—*Le Progrès Médical*, Oct. 2, 1875.

Successful Treatment of Acute Traumatic Suppurative Inflammation of the Knee-Joint.—From the *Schweiz. Corr. Bl. of* 1874, Dr. Asché quotes brief histories of three cases illustrative of the treatment of acute suppurative inflammation of the knee-joint of traumatic origin. The first case, reported by Prof. Socin, of Basle, concerned a butcher of twenty-four, who four days before had wounded his left knee with a sharp knife, laying open the joint. After binding the knee with a wet cloth he went on with his work, and at night walked home. When seen by S. the temperature was just short of 104° F., the knee was partly flexed, and at about an inch from the inner border of the patella was a sharply cut wound about one-fifth inch long, from which thin fluid escaped on pressure. There was fluctuation in the joint. The limb was put up in plaster-of-Paris in an extended position. The fever increasing after three days, the wound was dilated and an incision made along the outer border of the patella, and a drainage tube carried through it; at the same time extension up to thirty-five lbs., and counter-extension up to fifteen lbs., were applied. At the end of twelve hours the temperature had fallen to 100° F. Other incisions were subsequently made into the joint, but the tube and extension apparatus were removed after eighteen days. At the end of two months and a half after the receipt of the injury the patient could extend his leg vigorously, and flex it up to 80°. In the second case a carpenter of twenty-five had inflicted a wound with an axe on his left knee, and had continued working for some days. When seen by Dr. Sterchi, at the end of seven days, there was a wound of an inch long at the inner border of the patella, from which pus and synovia escaped; the joint was painful; no bare bone could be detected; the fever was moderate. An extension bandage and carbolic-acid dressing were applied, and recovery ensued. It should be observed that this patient was not treated in an hospital. A third case was that of a butcher, wounded in the knee with an axe. Suppuration set in, and an incision was made under carbolic acid into the distended capsule of the joint. Recovery followed under the use of carbolic-acid dressing. Thus it appears, says the commentator, that in individual cases the antiseptic treatment of suppuration of the knee-joint may be of service, although as a rule it is not possible in this way to prevent destructive suppuration of large joints when suppuration is already present. Permanent extension can produce a diminution of the intra-articular pressure only in cases where the ligaments of the joint and the muscles of the limb are much relaxed, taking off the pressure from the granulations and fluids in cases where the joint is closed, and when it is opened favoring suppuration and the escape of secretions. Still further advantages are found in preventing motion, improving the position of the limb, and changing the points of contact of the cartilages, and in preventing infiltration of the soft parts. Puncture of the joint should precede extension.—*Schmidt's Jahrb.*, Sept. 8, 1875.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor

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THE PROPHYLAXIS OF DIPHTHERIA.

In our leader of last week we called attention to the remarkable association which outbreaks of diphtheria are apt to have with filth-nuisances of some sort or other, and we urged the importance of planning means to abate them. It may be that we have not sufficient facts to justify us in accepting definitively the doctrine of a filth origin for the disease, even in those cases where the question of contagion is hardly to be thought of, and yet it seems that the evidence in support of the filth theory is getting stronger day by day, and it is certainly strong enough to warrant us in attacking the presumed source of the trouble. Success in this direction will also have another merit—that of mitigating or diminishing other diseases whose relation to filth is more clearly defined.

We must realize, however, at the outset, that sanitary measures can only be prosecuted to advantage by a sort of compact on the part of each individual with the proper authorities. Neither can accomplish much alone. Each householder must look to his sewer-pipes, closets, cellars, and the general good condition of his premises, while the authorities should see that the soil is properly drained, the waste carried off and properly disposed of; that gases do not force themselves into the house; that the water supply is not contaminated; and that public nuisances or evils are restrained or stopped.

We have no hesitancy in saying that a vast deal has yet to be accomplished by our public boards. In the matters of drains and sewers alone great reforms are needed.

Our ignorance of the natural water-course system of the city is a matter of common acceptance, while it seems to be conceded that in putting up buildings little or no attention has been paid to the matter. As for our sewers, we know that they have often been badly built, and are even now very prone to pour out their gases into our houses. As for the manner of making sewer connections for our houses, it has been left pretty much to the fancy of the builders.

Still, desirable as it may be to have good sanitary systems inaugurated and efficiently carried out, we can hardly expect them in the near future. The expenses and the doubtful efficiency of such measures will always be urged against them by those who have control of the public moneys, and yet it is no less important that we should look these matters in the face. The statement of Mr. Simon, Chief Sanitary Officer of Great Britain, is a rather startling one to consider. He says that of 1,000,000 deaths occurring in England, fully 125,000 are from preventable diseases; or, in other words, that one out of every eight deaths might have been prevented by the application of facts known to scientific men. Loss of life means loss of money to a community, and the actual amount can be computed with tolerable accuracy in dollars and cents. Fortunately we have an excellent example of the actual gain to a locality from carrying out an efficient sanitary system. The English town of Croydon was very unhealthful at one time, so much so, in fact, as to lead to the establishment of a pretty complete set of public works and the enforcement of special sanitary regulations, all of which have been in operation some fifteen years. The mortality before the completion of the works was 23 per 1,000. Afterward it was 18 per 1,000 for an average of thirteen years. This gain of five per cent. represented about 2,500 lives, and it has been estimated that the gain to the town from these lives saved during thirteen years was fully twenty-five per cent. more than the sum spent on the public works.

It is often hard to enforce truths like these on every-day thinkers, unless the advantages take the hard form of an actual gain or loss in money; but it is certain that the results of good sanitary work represent so much money actually saved to any district where it is applied.

But, after all, such measures are useless, if each individual does not do his part toward securing the common object; and, in fact, the best protection that any householder can have will be the result of careful attention to the sanitary condition of his own premises. In the great majority of cases he may be sure that his chances of disease will be very materially lessened.

The importance of these matters to us at this time is not to be underestimated.

Diphtheria has been prevailing extensively among us for several years, and the weekly mortality has been, as usual at this time of the year, gradually increasing from the low stand it took in summer. During last October the mortality for a single week was 54, which is higher than during any week in October of last year, and very far higher than the average of any week in October for the past five years. Fortunately this alarming rate of increase has not been sustained; in fact, the mortality for the week ending Nov. 27 was still at 54, though this is higher by five than for the corresponding week of last year.

Such facts show us that diphtheria is still present with us in a very deadly form, and our vigilance in watching for the treacherous enemy should not be relaxed, each one seeing that no door is left open to admit him. To know the subtle ways of the disease, and so to guard against them, is our best means of protection; early and appropriate treatment may doubtless modify, or perhaps arrest the disease in some instances, but when once the poison has entrenched itself in the system medical skill will be of little use.

The general measures that have been suggested are easy enough to understand when once the evils are known.

Attention to sewer pipes seems to be a matter of the greatest consequence, and as they have been frequently left open in erecting buildings, they should be most carefully examined. A case of diphtheria broke out recently in one of our most elegant houses, and the attack was fatal. In this house, where every attention had apparently been paid to sanitary conditions, there was a deficient sewer-pipe connection, so that the sewer gas, escaping in large quantity, was taken into the air-flues and so diffused throughout the house. In another case a brick drain covered with loose flagging passed under the furnace, and the gas was sucked in just as in the former case, and so carried with the hot air up into the house. These house drains of brick are specially dangerous, and it has been recommended that glazed or iron pipe be in all cases substituted for them. The smaller escape-pipes are also often apt to be overlooked, such as those that carry off the drip from under wash-sinks and basins: they are so rarely used that, if trapped, the water in the traps will soon evaporate, and then no barrier would be offered to the sewer gas. They should be kept tightly stopped or permanently closed. One of the best plans appears to be that of having one large trap to the house soil-pipe between the house and the sewer. This will prove an almost impassible barrier for all gas from the sewer; but, lest it should still enter, the soil-pipe may be ventilated by carrying from it a small tube through the roof, or into one of the chimney flues, preferably the kitchen one. We are also told that water-closets should be in parts of the house where they may freely communicate with the open air, so that they may be constantly kept sweet and odorless. One of the most important additions to any house is a tank upon an upper floor, so that there may at all times be a sufficient head of water to flush the basins and traps. The overflow pipe from the water-tanks should not communicate with the sewer or its connections, lest the gas find its way through it into the water. Various remedies are suggested for this, such as trapping the pipe, or leading it indirectly to the sewer. Perhaps it should escape independently or with the rain water from the roof. Cellars are now receiving special attention, and they should not only be thoroughly ventilated, but made perfectly water-tight, so that should a drain or sewer pipe in the neighborhood burst, the fluids cannot force themselves into the house.

An excellent plan, in case of suspected sanitary neglect, is to have the premises examined by some one who has had special experience in this branch of business. The services of an ordinary plumber are worse than useless.

But it is not only private houses, but private outbuildings that are sources of danger. Proprietors are apt to think that on their own premises they have a certain immunity from sanitary control. In this way they have been known to leave great piles of decomposing matter to rot for months together, even in the immediate vicinity of sleeping rooms; in one of such instances a terrible visitation of the disease appeared.

Of course next in importance to the prevention of an outbreak of the disease, is the hindrance of its spread, and here a fair amount of success is assured us by proper quarantining Adults take the disease comparatively rarely, and so they suffer less danger from attending on the sick. Children under two are specially prone to the disease, chiefly those between three and six. All children, therefore, should either be sent away or kept at a distance from the patient. The danger of carrying the disease upon the person is probably slight; those that have been in the immediate neighborhood of the patient have taken the disease most often, perhaps, from the sputa or breath. Such solid matters coming from the patient may, perhaps, best be destroyed by fire. It seems hardly probable that efficient disinfection can be carried on in the sick-room by the use of the ordinary disinfectants. If used in sufficient quantities to disinfect, their influence upon the patient would probably be injurious. Much, however, may be done by the introduction of fresh air in abundance, by which much of the poisonous matter can be removed. Water, also, is excellent, so far as it is used to keep the patient cleanly, and so diminish the danger of his being a centre of infection. Flowing water in the room seems to act extraordinary well, perhaps by withdrawing with it the poisonous exhalations in the air. When matters are to be taken from the room, disinfectants may be freely and advantageously used, and chlorine is now regarded as one of the most efficient means at our command. The common bleaching powder, to which a little acid is added, is the ordinary way of securing the evolution of the chlorine. Whenever the attack is over, the rooms may be fumigated or cleansed by a variety of different methods, but perhaps chlorine, for household purposes, will be found most effectual. The treatment of catarrhal affections of the air-passages, especially of children during the prevalence of diphtheria, has been recommended, and it appears to be a most excellent precautionary measure, as diphtheritic infection is very apt to be preceded by catarrhal symptoms.

With careful attention to such general matters it is likely that the frequency of diphtheria will be very much diminished.

THE PATENT MEDICINE TRADE.

Mr. McElhenie favors us with a communication upon the above subject, which will speak for itself. Notwithstanding his earnest defence of the pharmacists in regard to the question, we are still unconvinced that the course which he advises is the proper one. On all the subjects to which he refers we have expressed our opinion, and his arguments rather strengthen it than otherwise. Our remarks in regard to the Health Almanac are subject to modification, since the appearance of Mr. Hoffman's admirable annual. There can be no possible objections to such an almanac, but it is not of a kind which we were led to anticipate at the time the editorial referred to was written.

HANGING AS A SCIENCE.

Very rarely is a murderer scientifically hung. Notwithstanding the great anxiety of the sheriff to do his work properly, there is generally a slip somewhere which casts serious reflections upon his artistic skill. Sometimes the rope breaks, sometimes it is too long, occasionally there is a torturing delay from the defective working of the drop, and once in a while the knot is displaced, as in the case of one of the negroes hung last week. It is strange, too, that notwithstanding the great care taken to dislocate or fracture the odontoid process by means of the knot behind the left ear, the result is very exceptionably obtained. On the principle that whatever is worth doing at all is worth doing well, it seems quite necessary that our hangmen should study their science anew.

CLOSE OF VOLUME X.

In closing the tenth volume of the Record, we take occasion to express our obligations to our contributors and to the members of the editorial staff, for the very substantial and valuable aid they have given us during the past year. Dr. Thomas E. Satterthwaite, in his superintendence of the department of progress of medical science, has supplied our readers with the best of material from our exchanges. In this labor he has received the valuable assistance of Dr. J. H. Emerson, for the German selections; Dr. Geo. R. Cutter, for the Scandinavian; Dr. E. B. Bronson, for the French; and Dr. Charles Laight, for the English. Dr. Wesley M. Carpenter has continued his reports of the medical societies, lectures, and hospital notes; and Dr. F. A. Castle, in the news department, has kept us well supplied with the latest medical intelligence from different parts of the world.

The change of form in the Record from a semimonthly to a weekly has, we trust, added to its value, in not only giving us an opportunity for more frequent issues, but in increasing the size of the journal, and in enabling us to give a proportionate amount of space to satisfy the demands of our contributors. It is unnecessary for us at this time to refer to the character of the contributions which have appeared in our columns. Coming from many of the best writers in the country, they speak for themselves. In our selection of the subjects it has been our aim not only to meet the pressing wants of the general practitioner, but many of the articles were written at our special solicitation.

In the editorial discussion of the medical topics of the day it has been our endeavor to be independent, impartial, and truthful. If at times we have erred in judgment, it is a failing which is human, and which entitles us to the ordinary charity of a just appreciation of motive. During the coming year it shall be our aim to increase the usefulness of the journal by every means in our power, and to make it even more acceptable to our subscribers.

Reports of Societies.

NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION.

Stated Meeting, Dec. 3, 1875.

Dr. E. R. Peaslee, President, in the Chair.

INSECTS IN THE EAR.

Dr. Burrall mentioned a case where an insect walked out when the canal was artificially lighted up by holding a lamp in front of the ear.

Dr. Messenger calls to his aid the force of gravity in removing foreign bodies from the ear, and places the patient upon the side and throws the stream up into the ear while this position is maintained.

Dr. W. T. White related a case in which he removed a roach, about three-fourths of an inch long, from the ear, and it became necessary to use both the forceps and syringe. The serrated edges of the wings of the animal prevented him from backing out of the ear, and he died in the canal. The removal was piecemeal.

Dr. Messenger related a case where a woman, æt. forty, weighing 200 pounds, was walking the floor in agony; constant desire to micturate; constant desire to have an evacuation from the bowels; pulse frequent; nausea extreme; headache, and considerable abdominal distention. The uterus was found in a condition of extreme retroflexion. No attempt was made to restore the uterus to its normal position, but the woman was placed upon large doses of fld. ext. of helenium and verbena, and within twenty-four hours she was perfectly easy. The tense, hard feel had also disappeared from the body and neck of the uterus, etc. The case was related to elicit a probable explanation of the symptoms.

Dr. Peaslee remarked that probably it was a case of retroflexion of some standing, and that for some reason the uterus had suddenly become congested, and this gave rise to the great distress.

Under such circumstances he would have no hesitation in replacing the displaced organ at once. The condition is one of simple congestion, and that cannot be entirely relieved in any way so quickly as by restoring the organ to its normal position. He has never experienced any difficulty from this method of treatment in that class of cases, nor has he hesitated to use the sound, if necessary, to assist in restoring the organ; but it must be used carefully.

The Association then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 24th, 1875.

DR. F. DELAFIELD, PRESIDENT, IN THE CHAIR.

UTERUS AFTER ABORTION.

Dr. Putnam-Jacobi exhibited the uterus which had been presented at the previous meeting by Dr. Finnell, and which had been removed from a patient who had been the victim of criminal abortion. At the time of the first presentation of the specimen no connection could be made out between the peritonitis and supposed injury to the cervix uteri. Dr. Finnell was kind enough to allow Dr. Jacobi to examine the specimen after the meeting, and as the result she was enabled to discover inflammation of the veins behind the peritoneum, posterior to the cervix. One of the larger veins leading into a uterine sinus was intensely injected, while another contained a fibrinous clot, showing, as it seemed, quite conclusively that the starting-point of the peritonitis was in or about the cervix.

BROKEN ELASTIC CATHETER IN THE BLADDER.

Dr. D. M. Stimson presented a portion of an elastic catheter, which had been removed by operation from the bladder of a patient a few days before. The patient was a German, about middle age, who was injured in the back about fourteen years ago. As a result of this injury he had partial paralysis of the lower extremities and of the rectum. Ever since that time he had been obliged to draw off his water with an instrument. Two months ago he was run over by a wagon, the wheel of which passed over his loins. This greatly aggravated his urinary troubles, and forced him to enter the Pennsylvania Hospital. He remained there but a short time, and coming out he purchased some cheap catheters for his own use. Shortly after this, while passing one of these, it broke in the urethra, about eight inches from the tip. The patient could feel the fragment very plainly, extending nearly to the peno-scrotal angle. He then determined to present himself to Dr. Gross's clinic, and was again admitted to the hospital, when one of the house-staff, on examining the bladder, accidentally pushed the broken catheter in. The patient being much dissatisfied with this proceeding, determined to see Dr. Parker, of this city, and for that purpose took a journey on foot as far as New Brunswick, begging a ride the rest of the way on a freight train. During all this time the foreign body was in the bladder.

When he presented himself to Dr. Parker he had a string around his prepuce, which was swollen to the size of the fist. But such was the insensibility of the parts that the patient did not seem to suffer much inconvenience. When this string was removed the urine dribbled from the urethra. Dr. Stimson, in attempting to remove the catheter by the lithotrite, broke it (the fragment of catheter) in two. A few evenings after, Dr. Parker removed the portions thus broken, and in a week afterwards Dr. Stimson extracted the remainder of the foreign body. The patient suffered very little after the operations, and there was an insensibility about the parts which was rather remarkable.

SACRO-ILIAC DISEASE.

Dr. Mason presented the right os innominatum and sacrum, removed from the body of a man who had been a patient of Roosevelt Hospital, and who had been the subject of sacro-iliac disease. He was sixty-one years of age, and was admitted to the hospital January 20, 1875. About a year previous to this he had been in the institution suffering from elephantiasis of the penis, at which time the organ was removed by Dr. Weir. After leaving the hospital in August, 1875, he enjoyed perfect health for a month, when one night he was seized with a violent pain in the right hip. This extended along the outer and posterior portion of the thigh as far as the knee. The pain subsided somewhat in severity, and allowed him to follow his vocation as watchman.

On the following February he had another attack of most intense pain in the neighborhood of the hip and outer portion of the thigh. This pain was of a dull, aching character, and extended down to the knee-joint. The second attack confined him to his bed for a period of two weeks.

Just before his admission into the hospital he accidentally discovered a soft tumor on the anterior portion of the thigh, just below Poupart's ligament. This tumor had a vertical measurement of four and a half inches, and a horizontal measurement of four inches. It was regarded as a chronic abscess, and was aspirated February 4th. All this time the patient was able to walk about, and complained of nothing but a pain in the hip-joint. On the 5th of March Dr. Mason examined the patient very carefully, but did not succeed in finding any indication of disease in the articulation in question. On the 20th of August he began to complain of intense pain in the left hip-joint, which pain was so severe as to require hypodermic injections for its relief. About this time he had an attack of erysipelatous inflammation of the anterior portion of the thigh, after his recovery from which diarrhœa set in, which proved intractable, and he finally died of exhaustion, September 24th.

The autopsy revealed disease of the right sacro-iliac articulation. The ligaments of the part were destroyed, and the bones were extensively eroded.

The points of interest were: 1. The age of the patient, it being a disease almost entirely restricted to the young. 2. The ability to walk about during the progress of the disease. 3. The absence of any tumor or tilting of the pelvis to indicate the presence of the disease, and the final appearance of pus on the anterior portion of the thigh.

In connection with this case, Dr. Mason remarked that he had treated for this trouble a young man, aged twenty-three years, who was restored by absolute rest and counter-irritation by actual cautery.

Dr. Delafield remarked that he had seen four cases of the sort—all in adults—but in none was the diagnosis made before death. In all of them the anatomical characters were the same, viz.: erosion of the bone and destruction of the cartilage. There was no cheesy matter in or about the bone. The process did not resemble caries of the spine, nor destructive disease about the hip-joint, but seemed more like the suppuration which takes place in the vertebræ.

Dr. Mason stated that Mr. Erichsen had never seen a case recover, while Mr. Hilton recorded two or three such; one particularly, in which a large abscess formed on the gluteal region, attended with much loss of tissue and adhesion of contiguous parts.

PERITYPHLITIS.

Dr. Weir presented a specimen, removed from a patient who had been the subject of an operation for perityphlitic abscess. The patient was a young man, aged nineteen years, who was first taken sick last May, with what appeared to be malarial fever, and which lasted three or four weeks. Following this attack he had diarrhœa, which although not severe was quite persistent. He was admitted into the hospital October 8, presenting a tumor in the right iliac fossa, which swelling he had noticed a week before. The tumor was easily recognized, involving the whole right iliac fossa, reaching up to the umbilicus, and losing itself over the region of the ascending colon. It was tender to the touch; temperature, 98½° F. The diarrhœa presented no extraordinary symptoms. A rectal examination disclosed an indistinct tumor, high up towards the fossa. The patient having anasarcous extremities, and being a little below par, remained in the hospital until the 12th, when the tumor increasing in size, it was determined to use the aspirator, which was accordingly done. The needle was introduced about an inch and a half anterior to the anterior superior spinous process, and a drachm and a half of pus was obtained, when the instrument became choked and was withdrawn.

The following day the patient was placed under ether; the aspirator was again used, not only for the purpose of confirming the diagnosis, but as a guide to the knife. The incision was an inch and a half in length, and was carried across the centre of the needle through the abdominal walls. Then the aspirator was used as a guide, followed by the forefinger. The cavity of the abscess was opened and pus was evacuated. Although this pus did not present the characteristic odor of such discharged from an abscess directly or indirectly connected with the bowel, the possibility of its being of this nature was beyond a doubt. The next day fæcal matter was discharged, and continued to discharge for a week afterwards. At the end of this time the discharge lost its fæcal odor, became quite watery, and was then mixed with white particles looking like undigested milk. The probability of this discharge coming from the small intestine was thought of, but its possibility under existing circumstances hardly entertained.

The wound finally closed, and the patient went out on pass on the 29th. When he returned he felt badly. On examination, it was noticed that the tumor had increased in size. Unequivocal symptoms of peritonitis soon after showed themselves, and he died within a week afterwards.

At the autopsy there was found general peritonitis, the intestines on the right iliac fossa being firmly matted together. It was seen that the incision of the operation was opposite an opening (or rather the cicatrix of one), which had existed in a distended portion of the small intestine. This portion was in the jejunum, about twelve feet from its origin. The distention was due to a new growth, which so softened the intestinal walls as to insure ulceration at different points and perforation at the point previously referred to. The caput coli, although imprisoned in the mass, was perfectly healthy.

EXSECTION OF SHOULDER.

Dr. Weir also exhibited three and a half inches of the superior portion of the left humerus, which he had removed by exsection from a man forty-eight years of age, who had suffered for a considerable time with chronic suppurative disease of that joint. The operation was performed by the straight incision with the view of saving the long tendon of the biceps. The glenoid cavity was so thoroughly involved as to necessitate its being gnawed off to a level with the ribs. The instrument, which did very effectual service in the latter step of the operation, was a cup-shaped gouge, which was exhibited to the Society. The operation was successful, and the patient was, at the time of reporting the case, doing well.

Dr. Mason asked how far the elbow could be raised from the side in these cases.

Dr. Weir had never seen it exceed six or seven inches.

Dr. Mason referred to a case operated upon by him, in which the arm could be swung up so that the hand could be placed upon the head, although the elbow by the ordinary efforts of the patient, could not be separated from the side farther than the usual distance of six or seven inches.

Dr. Weir remarked that this latter inability to raise the elbow was supposed by some to be due to a paralysis of the deltoid, due to injury of the circumflex nerve. This was to his mind hardly a sufficient explanation.

Dr. Mason believed that it was due to the shortening of the distance between the origin and insertion of the said muscle, caused by the removal of the portion of bone.

Dr. Post exhibited last phalanx and a portion of the second phalanx of the index finger, due to a neglected paronychia. He took occasion, in connection with specimen, to advocate the necessity of free and deep incisions as a preventive of the complication.

Dr. Post lastly exhibited two small calculi, which he had removed by lithotrity from a man aged fifty years; after which the Society went into executive session.

Correspondence.

INGROWING TOE-NAIL.

To the Editor of The Medical Record.

Dear Sir:—So many methods have been proposed for the cure of ingrowing toe-nail, that I have some hesitation in saying anything upon the subject, the more so as I am not sure that the method I have adopted for some years past is at all novel, though as yet I have seen no mention of it in accessible authorities.

I have had constructed a small saw an inch and a half long, and something more than a sixteenth of an inch thick, with teeth filed square across, so as to give a chisel edge. With this I cut a longitudinal groove from the end to the matrix of the nail, and rather nearer the diseased side; another short cut is made across the convexity of the nail and as near as possible to its root, each cut extending nearly through its thickness. The segment on the diseased side is thus rendered quite movable. A slight nick is now made on each side of the nail, sufficient to lodge a bit of waxed silk, which is then carried around the two sections, and tied so as to draw them together, and allow one to slightly override the other. I then usually cut off a small portion of the nail next the ulcer, and elevate the edge by introducing beneath it a bit of oiled lint. The granulations are then touched with nitrate of silver, sprinkled with iodoform, and the entire toe enveloped in lint, soaked in carbolized oil. The ligature is left in position long enough to allow the aggressive margin of the nail to assume a new direction of growth, and the ulcer to heal. While this procedure is not wholly painless, it is still less painful than any other method I have tried, and has been in every instance in my experience effectual, and permanent in its results.

J. L. Hicks, M.D.

Flushing. *December* 3, 1875.

NERVOUS DISORDERS FROM GENITAL IRRITATION.

To the Editor of The Medical Record.

Sir:—Pertinent to the subject discussed by Dr. Jacobi, in his remarks upon nervous disorders arising from genital irritation, reported in your issue of December 4th, is the following case:

There are two reasons which dispose me to think a single case worthy of mention and record: the first is, that the subject is, as every one who has read Dr. Jacobi's remarks must feel, of great and insufficiently recognized importance in its bearing upon the development and nervous endowment of children; and the second, that the case illustrates, in a somewhat striking way, the peculiar views in regard to strictures "of extreme calibre," which Dr. Otis has the credit of having brought prominently before the profession. A gentleman, 35 years of age, a merchant, about a year since began to tell me of some trouble in his urethra. Some months before he had a clap which was fairly cured, and left no gleet. By and by he began to suffer from a thrilling pain, which he described as radiating from a point in the urethra, half an inch behind the corona glandis, outward to the left side of the dorsum of the penis. It was not an acute pain, but it was constant. Business must be very brisk or company very entertaining to make him forget it, or to interrupt a sexual erethism which it excited and maintained, to his great annoyance.

He was an unmarried man, and he did not like it that he could not see a woman without feeling an improper impulse toward her.

But his great trouble was at night. The pain teased him until he got to sleep, and when consciousness was suspended he had erections so urgent and continuous that his sleep was unrefreshing and his waking languid. In short, this matter was making a change in his whole life. He had been a keen and ambitious business man, but now he did not get to his store until noon, and was becoming a flabby erotomaniac.

Examination showed some redness about the meatus, but no discharge or tenderness on pressure. Examined by bougie, he complained of sensitiveness at the spot whence the pain radiated. By the endoscope nothing was determined. Successively steel sounds, 14, 16, 18 of the English scale, were passed into the bladder without trouble. Eighteen completely filled the meatus and even stretched it, though it passed onward without difficulty. The calibre of the passage was therefore at all points somewhat larger than at its orifice. This has been held to be conclusive evidence against the presence of stricture. Therefore at that time no larger instrument was tried. Regarding the case as a neurosis or possibly a neuroma of the submucous tissue, various expedients were employed. The most successful were pencils of butter of cacao, containing as much iodoform as might be mixed with it. One of these was passed down to the seat of irritation, at night a full dose of bromide of potassium given, and the genitals enveloped in a cloth wetted with ice-water. He said that this programme mitigated his priapism, but obliged him to apologize to everybody for smelling so. But he kept it up for a good while, until the bromide seemed to produce a herpetic trouble of the skin. Then I suggested blistering under the track of the urethra. He approved, and wore several successive coats of cantharidal collodion, hiding his talent in a napkin for some weeks.

But all these ungracious methods appearing to be only of temporary use, I determined to stretch his urethra. With some force a bulbous bougie (31 French) was pushed through the meatus and fossa navicularis. It encountered resistance at the seat of the pain, but thence moved onward to the bulbo-membranous portion easily. In withdrawing, it was arrested at the same spot, and considerable blood followed its removal. Some days after, he returned to tell me that the pain and sexual irritation had been much relieved. The same process was repeatedly followed by the same result. About four days after each dilatation the irritation returned, and continued until the urethra was again stretched. This sufficiently showed that the whole train of symptoms depended upon a narrowing of the urethra, so slight as hardly to deserve the name of stricture. The case was typically an illustration of the views of Dr. Otis, who suggested, on hearing my account of it, division of the band. This I did thoroughly after freely incising the meatus, and passed bulb 39, of the French scale, down to the membranous portion. At last accounts, some six weeks after the operation, the man seemed to be entirely cured, but was passing at intervals of a week bulb No. 35, to prevent recontraction.

Dr. Jacobi raises the question, whether many of these cases which have been called reflex are not rather direct genital irritation, tending to an ascending neuritis or even myelitis. Such would seem to be the solution in the present instance.

W. M. Chamberlain.

68 W. 40th Street, *Dec. 6th*, 1875.

THE VENDING OF NOSTRUMS.

By THOS. D. McELHENIE, Ph.G.

(Read before the N. Y. Alumni Association of Phila. Coll. of Phar., November 2.)

An editorial in The Medical Record of Oct. 9th, entitled, "Shall it be a Profession or a Trade?" treats of pharmacy in its commercial phase, and the writer improves the opportunity to indulge in certain thrusts at pharmacists as "vendors of patent medicines." He diagnoses "an over-sensitiveness of the pocket nerve." and holds the following language: "Some of the semi-medical preparations thus sold have long since been proven by analysts to be possessed of positively deleterious, if not absolutely poisonous properties, and yet because the public, so called—a name which in this case is almost a synonym for a non-educated portion of the community—seek them, the druggist finds a convenient excuse for indulging in a traffic that is pecuniarily profitable."

The insinuation of the remark quoted, to the effect that the pharmacist regards the sale of patent medicines as an indulgence, and is glad of the excuse of popular demand, behind which to screen himself, is most unkind and unjust to the respectable minority in the profession, who regard this feature as a nuisance, and would gladly aid in its discontinuance.

But as yet the fact remains that patent medicines of all sorts flood the market, and the public buy them, and buy them, too, of the apothecary, because by long usage his shop is the most natural place to look for anything in the medical line. The nostrum-buying public would feel flattered at being told by their physicians that they comprised "the non-educated portion of the community." Such statements, however, would not be true. In fact, it is within the writer's knowledge that among the patrons of certain nostrums are numbered many of the best educated people, notably the clergy, who have an unaccountable propensity for endorsing nostrums, by which they incur a great responsibility. It may be well to consider some phases of the "over-sensitiveness of the pocket-nerve," which The Record concedes as generally prevalent. It prompts the patient to buy patent medicines, because if they cure him it will probably be at less cost than regular treatment by a physician, and as he in most cases *imagines* they will cure, they often do.

The same affection prompts the pharmacist to sell patent medicines because the public demand them, there is little trouble attending their sale, and the profit helps eke out his ofttimes scanty income. It also prompts the physician to object to the sale of nostrums, as thereby his business is more or less affected, and consequently his bank account.

Admitting, then, the existence of the state of things described, and recognizing its injurious influence upon the public health, what is the remedy? In the opinion of the writer, it is not the measure proposed by The Record, viz., a peremptory refusal on the part of the pharmacist to sell these nostrums. As the growth of the evil has been gradual, so its diminution must be accomplished by mild but constant and well-directed efforts on the part of *all* pharmacists. The medical profession is powerless in the matter, as any protest uttered by physicians would be ascribed to interested motives. To the pharmacist, then, we must look for alleviation of this nuisance; to this end it is important that he should realize his responsibility as the purveyor of medicines, and conjointly with the physician, as conservator of the public health. As a person of skilled judgment in such matters, his opinion is deferred to by his patrons, when he takes the trouble to express it. His duty, then, is never to recommend a patent medicine, keep no advertising matter setting forth their merits, allow no display of signs and show-cards, etc., in his shop, and if possible, as it often is, keep such nostrums out of sight of the public to supply only on customer's order, *provided* he cannot prevail upon him to consult a physician, or to try some remedy which he shall prescribe. A peremptory refusal to supply a patent medicine would only send the customer to the next drug store; or supposing there to be a unanimity among pharmacists on this point—a thing impossible—the proprietors of the tabooed preparations would establish agencies at other places of business, and thus the business of the apothecary would suffer without materially affecting the sale of the nostrums.

On the other hand, it is believed that a judicious and dignified pursuance of the course indicated above would secure to the pharmacist the respect of his patrons, thus inuring to his pecuniary advantage, while gradually doing away with the traffic in articles whose properties and composition are unknown alike to buyer and seller.

The Record characterizes as a "half-way measure" the proposed issuing of an almanac by pharmacists, and says "it will be incomplete, unsatisfactory, and impracticable." Such advertisement will no doubt be appreciated by the publisher and editor, with whom the *Popular Health Almanac* is an accomplished fact.

In the writer's opinion, "half-way" measures are more likely to succeed in this matter than the violent one of absolute refusal, and the substitution of the proposed almanac for the rubbish with which our counters are (by our leave) annually flooded, will go far toward lessening the demand for patent medicines.

In conclusion, it is suggested that two joint committees be appointed at the next annual meeting of the National Medical and Pharmaceutical Association, one of these being instructed to prepare a series of formulæ for household remedies, providing a suitable variety of each class to meet the varied wants of the family. These formulæ, brought to the notice of, and adopted by pharmacists, would measurably lessen the sale of nostrums among the large class who are unwilling to call a physician for every little ailment.

The duty of the second committee should be to obtain information relative to the laws governing the granting of patents on articles of a medicinal or cosmetic nature, and endeavor to secure by legislation greater stringency in these laws, and thus diminish the forces of the enemy.

From the Patent Office at Washington I have the following data, showing a gratifying declension in the issue of patents on "Medical Compounds." There have been granted in all about 650.

In 1872 there were issued..........	68
" 1873 " " "	39
" 1874 " " " about.......	30

As the number of items in the catalogue of the leading American dealer is probably several thousand, it is evident that a large majority of "patent medicines" are *not* patented after all.

Flatbush, L. I., *Nov.*, 1875.

CHANGES IN THE PUBLIC SERVICE.

ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from Dec. 12th to Dec. 18th, 1875.

Williams, J. W., Assistant Surgeon.—Leave of absence extended one month. S. O. 70, Headqrs. of the Army, Dec. 13, 1875.

Yeomans, A. A., Assistant Surgeon.—Assigned to duty at Fort Richardson, Tex. S. O. 231, Dep't of Texas, Dec. 8, 1875.

Adair, G. W., Assistant Surgeon.—Assigned to duty at Fort McKavett, Tex. S. O. 233, Dep't of Texas, Dec. 10, 1875.

Bedal, S. S., Assistant Surgeon.—Assigned to duty at Fort Concho, Tex. S. O. 233, c. s., Dep't of Texas.

Wilson, A. D., Assistant Surgeon.—Died at Camp McDowell, Arizona Territory, on Nov. 30, 1875.

* * *

The British Medical and Surgical Journal says that while three or four homœopathic practitioners were before the city committee recently with their roll of petitioners' names, to urge that a ward in the City Hospital be devoted to homœopathic treatment, and lamenting the absence of the petitioners themselves, their *first* and *chief* petitioner was at that very time convalescing under the care of a regular physician, having dismissed his homœopathic attendant some days previously.

Medical Items and News.

Dr. A. Jacobi.—By an oversight of the printer, Dr. Jacobi did not have an opportunity of seeing the proof of his remarks on nervous affections in children. As a consequence, there are some inaccuracies of statement for which Dr. Jacobi is not accountable.

American Otological Society.—At the last meeting of this Society, held in Newport, R. I., July 21, 1875, it was voted: That the Committee on an International Congress be empowered by this Society to issue a call for an International Otological Congress, at such time and place as they shall see fit. In accordance with this vote, the Committee have called a Congress, to be held in New York City, on Friday, Sept. 15, 1876, at 10 o'clock A.M., the place of the meeting to be announced later. Members of the medical profession who take an active interest in aural surgery are cordially invited to be present and take part in the Congress.

Committee—D. B. St. J. Roosa, Clarence J. Blake, Herman Knapp, J. Orne Green.

The Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques, published by Baillière & Son, of Paris, has reached the twentieth volume, and embraces Lachrymal Gland and Luxation.

Professor Dittel, of Vienna, lately received from Baron Sina, a patient of the Professor, a present of a valuable casket containing twelve thousand gulden notes.

Erratum.—In the last issue of this journal, page 835, right-hand column, line 37, third word, read "magnesia" for "potassa."

Night Medical Service in Rome.—Dr. Lauchlan Aitken writes from Rome to the *British Medical Journal*, that a system of night medical service has for two years' time been in operation in that city, and that thus far it has been quite satisfactory. In Rome, when the night service was established, a pharmacy was selected in each of the five Rioni—the old Regiones—into which the city is divided for municipal purposes. These five pharmacies remain open all night, and are marked by a gas lamp of peculiar form, colored red, and distinctly marked, "Servizio Sanitoris Notturno." To each of these are attached a certain number of physicians and surgeons who attend in rotation, receiving for each night of such attendance (from ten P.M. to six A.M.) the sum of seven francs, and any fees they may recover if called to patients who can afford to pay.

The late Isaac S. Hunt, of Port Jervis, N. Y.—The Tri-States Medical Association, at its regular meeting Dec. 1, 1875, at Port Jervis, N. Y., passed the following on the death of Isaac S. Hunt, M.D., of Port Jervis:

Whereas, Since the last meeting of our Society death has invaded our Association, and has stricken down one of our fellow-members, Isaac S. Hunt, in the very prime of his manhood; therefore

Resolved, That in the death of our lamented brother this Society and the profession have suffered the loss of a worthy member, and one we had all learned to love and respect.

Resolved, That we unite in tendering to the family of our late brother and advocate the assurance of our deepest sympathy, not in the hope that we can lighten the burden of their sorrow, but as an expression of our claim to share their grief as sincerely as we mourn his loss.

Resolved, That these resolutions be entered on the minutes of the Association, and that they be published in the local papers, and a copy sent to the family of our late brother, and also to the editors of the *Medical and Surgical Reporter* and The Medical Record, for publication in those journals.

Committee—B. G. McCabe, W. L. Appley, E. Crocker.

Hard on the Profession.—A lay contemporary says that "America has one physician to every 800 inhabitants. That is, they begin on that basis, but after that there are not so many inhabitants."

The Obstetrical Society of Edinburgh are about to issue shortly a third volume of *Transactions*, embracing the three sessions, 1871–2, 1872–3, and 1873–4. It is now in the printer's hands, and will appear very soon.

English Medical Addresses.—Dr. Parkes will give the Harveian Address at the Royal College of Physicians, London, next year; Dr. Habershon, the Croonian Lectures; Dr. Dickinson, the Lumleian Lectures; and Dr. Shepheard, the Gulstonian Lectures. Dr. Sibson is soon to lecture before the Harveian Society, of London, on Bright's Disease and its Treatment.

Drink and Disease.—*The Lancet* of Nov. 13 gives some curious calculations which have been made of the proportional amount devoted by the workingmen of Birmingham to the support, respectively, of their public-houses and of their hospitals. The figures bear something like the ratio of thirty to one. £3,000 is contributed annually by them to the medical institutions of the town, and £900,000 is spent in drink. *The Lancet* further asks, "What proportion does the contribution of the workingmen bear to the total expenses of the hospitals?" which are for them and theirs only. On the other hand, what proportion of the work of these medical institutions is occasioned by the drink on which they spend so much? Commenting on the state of the case the writer says: "We remove every obstacle to as free a consumption of liquor as is consistent with the maintenance of equilibrium, and then, with a benevolent appropriateness, we provide hospitals in which the consequences of the drink can be recovered from, ameliorated, or assisted to an euthanasia." The corrective suggested for this state of affairs is "that the drink sold within a certain area should be so taxed as to defray the expenses of skilled treatment for those whom drink has prostrated and incapacitated for their work."

Small-Pox is epidemic in Cincinnati, the greatest mortality being among children.

A School of Medicine for Women is to be opened in Brussels in December.

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Weekly Bulletin of the Meetings of Medical Societies.

Monday, December 27.—Medical Society of the County of New York; Council of New York Academy of Medicine.

Tuesday, December 28.—Yorkville Medical Association.

Friday, December 31.—Medical Journal and Library Association.

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